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<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
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Cys Asp Ile Ser Cys Lys Gly Gly His Ser Thr Val Thr Asp Leu Gln		175
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Asp Val Val Pro Ser Ser Phe Cys Val Lys His Cys Arg Asn Leu Gln		220
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Gly Ala Lys Leu Leu Tyr Thr Thr Leu Arg His Pro Lys Cys Phe Leu		415
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Gln Arg Leu Ser Leu Glu Asn Cys His Leu Thr Glu Ala Asn Cys Lys		430
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	450	455
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Val Lys Gly Met Lys Phe Leu Cys Glu Ala Leu Arg Lys Pro Leu Cys		525
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545	550	555
Cys Glu Asp Val Cys Ser Ala Leu Ser Cys Asn Gln Ser Leu Val Thr		560

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<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
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Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
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Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
      35      40      45
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      50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
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Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

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<212> DNA

<213> Homo sapiens

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Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
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Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

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 <212> PRT
 <213> Homo sapiens

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 Gly Gly Phe Phe Pro Pro Pro Pro Pro Lys Lys Lys Thr Arg Lys
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<210> 4389
 <211> 1895
 <212> DNA
 <213> Homo sapiens

<400> 4389

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<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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 <212> DNA
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<210> 4392
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      50           55           60
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser
      65           70           75           80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Pro
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Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser
      100          105          110
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg
      115          120          125
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met
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Ser Ala Met Glu Pro His Val Asn Gly Ser Leu Gly Ser Gly Asp
      145          150          155          160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser
      165          170          175
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Gly
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<212> DNA

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 Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
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 Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
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 Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
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 245 250 255
 Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
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 325 330 335
 Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
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<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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Thr	Arg	Thr	Gln	Arg	Pro	Ser	Gly	Phe	Arg	Glu	Ala	Ala	Val	Leu	Gln

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 <211> 2543
 <212> DNA
 <213> Homo sapiens

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4398

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Pro	Gln	Ile	Lys	Thr	Glu	Lys	Ser	Gly	Ser	Ile	Gly	Ala	Ala	Asp	Ser
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Ala	Gly	Ile	Phe	Asp	Cys	Trp	Glu	Pro	Pro	Glu	Gly	Gly	Asp	Val	Leu
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Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu		
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Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro		
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Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln		
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Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln		
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
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Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
65           70           75           80
Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
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Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
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Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
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Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
      130          135          140
Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
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Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
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Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
      195          200          205
Val Leu Glu Gln Gln His Val Ile Asp Asp Leu Ser Leu Glu Arg Glu
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<212> DNA

<213> Homo sapiens

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300

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 50 55 60
 Gln Tyr Gly Arg Trp Ala Val Val Ser Gly Ala Thr Asp Gly Ile Gly
 65 70 75 80
 Lys Ala Tyr Ala Glu Glu Leu Ala Ser Arg Gly Leu Asn Ile Ile Leu
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 100 105 110
 Asp Thr Tyr Lys Val Glu Thr Asp Ile Ile Val Ala Asp Phe Ser Ser
 115 120 125
 Gly Arg Glu Ile Tyr Leu Pro Ile Arg Glu Ala Leu Lys Asp Lys Asp
 130 135 140
 Val Gly Ile Leu Val Asn Asn Val Gly Val Phe Tyr Pro Tyr Pro Gln

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	195		200		205	
Leu Gln Pro Thr Pro Gln Leu Ala Ala Phe Ser Ala Ser Lys Ala Tyr						
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Leu Asp His Phe Ser Arg Ala Leu Gln Tyr Glu Tyr Ala Ser Lys Gly						
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<212> DNA

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<210> 4406

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4406

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Leu Cys Leu Gln Gly Tyr Tyr Arg Gly Ala Val Gly Ala Leu Leu Val
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Phe Asp Leu Thr Lys His Gln Thr Tyr Ala Val Val Glu Arg Trp Leu
20           25           30
Lys Glu Leu Tyr Asp His Ala Glu Ala Thr Ile Val Val Met Leu Val
35           40           45
Gly Asn Lys Ser Asp Leu Ser Gln Ala Arg Glu Val Pro Thr Glu Glu
50           55           60
Ala Arg Met Phe Ala Glu Asn Asn Gly Leu Leu Phe Leu Glu Thr Ser
65           70           75           80
Ala Leu Asp Ser Thr Asn Val Glu Leu Ala Phe Glu Thr Val Leu Lys

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	85		90		95
Glu Ile Phe	Ala Lys Val Ser Lys	Gln Arg Gln Asn Ser	Ile Arg Thr		
	100		105		110
Asn Ala Ile	Thr Leu Gly Ser Ala	Gln Ala Gly Gln Glu	Pro Gly Pro		
	115		120		125
Gly Glu Lys	Arg Ala Cys Cys	Ile Ser Leu			
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<210> 4407

<211> 974

<212> DNA

<213> Homo sapiens

<400> 4407

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<210> 4408

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4408

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Arg Met Phe Asp Val Gly Gly Gln Arg Ser Glu Arg Lys Lys Trp Ile
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      20           25           30
Ala Tyr Asp Met Val Leu Val Glu Asp Glu Glu Val Asn Arg Met His
      35           40           45
Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
      50           55           60
Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
65           70           75           80
Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
      85           90           95
Pro Asn Thr Phe Glu Asp Ala Gly Asn Tyr Ile Lys Asn Gln Phe Leu
      100          105          110
Asp Leu Asn Leu Lys Lys Glu Asp Lys Glu Ile Tyr Ser His Met Thr
      115          120          125
Cys Ala Thr Asp Thr Gln Asn Val Lys Phe Val Phe Asp Ala Val Thr
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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780

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<210> 4410

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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			20					25				30			
Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly	Thr
		35					40				45				
Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys	Pro
	50					55					60				
Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr	Asp
65				70					75					80	
Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro	Cys
			85					90						95	
Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys	His
			100				105					110			
Met	Asn	Val	Thr	His	Ser	Arg	Met	Gln	Ile	Cys	Asp	Gln	Cys	Gly	Lys
		115					120				125				
Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp	Cys
	130					135					140				
Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys	Leu
145				150					155					160	
Trp	Ser	Leu	His	Glu	His	Asn	Lys	Ile	Val	His	Gly	Tyr	Ala	Glu	Lys
			165					170						175	
Lys	Phe	Ser	Cys	Glu	Ile	Cys	Glu	Lys	Lys	Phe	Tyr	Thr	Met	Ala	His
		180						185					190		
Val	Arg	Lys	His	Met	Val	Ala	His	Thr	Lys	Asp	Met	Pro	Phe	Thr	Cys
		195					200					205			
Glu	Thr	Cys	Gly	Lys	Ser	Phe	Lys	Arg	Ser	Met	Ser	Leu	Lys	Val	His
	210					215					220				
Ser	Leu	Gln	His	Ser	Gly	Glu	Lys	Pro	Phe	Arg	Cys	Glu	Asn	Cys	Asp
225				230					235					240	
Glu	Arg	Phe	Gln	Tyr	Lys	Tyr	Gln	Leu	Arg	Ser	His	Met	Ser	Ile	His
			245					250						255	
Ile	Gly	His	Lys	Gln	Phe	Met	Cys	Gln	Trp	Cys	Gly	Lys	Asp	Phe	Asn
		260					265						270		
Met	Lys	Gln	Tyr	Phe	Asp	Glu	His	Met	Lys	Thr	His	Thr	Gly	Glu	Lys
		275					280					285			
Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro	Asn
	290					295					300				
Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro	Cys

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305          310          315          320
Asp Val Cys Gly Gln Arg Phe Arg Phe Ser Asn Met Leu Lys Ala His
          325          330          335
Lys Glu Lys Cys Phe Arg Val Ser His Thr Leu Ala Gly Asp Gly Val
          340          345          350
Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
          370          375          380
Pro Pro Pro Pro Pro Leu Phe Pro Thr Thr Ala Ser Pro Gly Gly Arg
385          390          395          400
Met Asn Ala Asn Asn
          405

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<210> 4411
 <211> 484
 <212> DNA
 <213> Homo sapiens

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<400> 4411
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120
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180
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300
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360
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484

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<210> 4412
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 <212> PRT
 <213> Homo sapiens

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<400> 4412
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Leu Ser Ile Lys Glu Glu Gly Pro Arg Leu Gly Leu Gly Gly Leu Gly
          20          25          30
Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
          35          40          45
Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
          50          55          60
Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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65 70 75 80
 Ala Pro Ala Ser Arg Gln Arg Val Gly Phe Leu Gly Gln Pro Gln Ser
 85 90 95
 Cys Gln Arg Gln His Val Ser Leu His Arg Ser His Gln Ala Pro Leu
 100 105 110
 Asp

<210> 4413
 <211> 1097
 <212> DNA
 <213> Homo sapiens

<400> 4413
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 120
 agcagcctgg cactcttcag agatgatacg ggtgtcaaat atggcttggt gggattggag
 180
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 240
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<210> 4414

<211> 65
 <212> PRT
 <213> Homo sapiens

<400> 4414
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 Lys Leu Glu Glu Lys Thr Ala His Ser Ser Leu Ala Leu Phe Arg Asp
 35 40 45
 Asp Thr Gly Val Lys Tyr Gly Leu Val Gly Leu Glu Pro Thr Lys Val
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 Pro
 65

<210> 4415
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4415
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 660
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<210> 4416
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4416

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      20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
      65           70           75           80
Leu Val Thr Phe Gly Cys Cys Ala Leu Lys Glu Pro Gly Leu Glu Phe
      85           90           95
Val Gly Val Ile
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<210> 4417

<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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<210> 4418

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4418

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Lys Leu Gln Glu Glu Gln Arg Lys His Ser Ala Glu Lys Glu Ala Leu
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Leu Glu Glu Thr Asn Ser Phe Leu Lys Ala Ile Glu Glu Ala Asn Lys
65 70 75 80
Lys Met Gln Ala Ala Glu Ile Ser Leu Glu Glu Lys Asp Gln Arg Ile
85 90 95
Gly Glu Leu Asp Arg Leu Ile Glu Arg Met Glu Lys Glu Arg His Gln
100 105 110
Leu Gln Leu Gln Leu Leu Glu His Glu Thr Glu Met Ser Gly Glu Leu
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Thr Asp Ser Asp Lys Glu Arg Tyr Gln Gln Leu Glu Glu Ala Ser Ala
130 135 140
Ser Leu Arg Glu Arg Ile Arg His Leu Asp Asp Met Val His Cys Gln
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Gln Lys Lys Val Lys Gln Met Val Glu Glu Ile Glu Ser Leu Lys Lys
165 170 175
Lys Val Gln Gln Lys Gln Leu Leu Ile Leu Gln Leu Leu Glu Lys Ile
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Ser Phe Leu Glu Gly Glu Asn Asn Glu Leu Gln Ser Arg Leu Asp Tyr
195 200 205
Leu Thr Glu Thr Gln Ala Lys Thr Glu Val Glu Thr Arg Glu Ile Gly
210 215 220
Val Gly Cys Asp Leu Leu Pro Ser Pro Thr Gly Arg Thr Arg Glu Ile
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<210> 4419

<211> 369

<212> DNA

<213> Homo sapiens

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<211> 768

<212> PRT

<213> Homo sapiens

<400> 4424

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Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
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Lys Gly Gln Glu Ala Gly Gly Phe Phe Glu Asp Ala Ser Gln Tyr Asp
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Glu Asn Leu Ser Phe Gln Asp Met Asn Leu Ser Arg Pro Leu Leu Lys
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<212> DNA

<213> Homo sapiens

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 Ala Pro Gln Pro Arg Arg Lys Pro Ser Phe Gln Thr Val Gly Ile Pro
 50 55 60
 Phe Ile Pro Trp His Arg Glu Pro Lys Gly Met Gln Thr Asp Pro Gly
 65 70 75 80
 Arg Ala Leu His Ser Gln Thr Leu Ala Arg Thr Arg Arg Leu Gly Ala
 85 90 95
 Pro Arg Arg Ala Leu Pro Pro Arg Pro Pro Pro Ala Asp Ser Pro
 100 105 110
 Leu Cys Glu Leu Asn His Leu Gly Ala Met Cys Arg Gly Arg Ala Ser
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 Xaa Pro Pro Val Ser Trp
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<210> 4431
 <211> 507
 <212> DNA
 <213> Homo sapiens

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 180
 ccccgaggacc ctggccggcc tgcagggtgg tctgtgggag gctccaggcc ctctgtgca
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 ggtccaagcg cagccaatcc tcaactcaagg ccttcctgc cctttccttc cgccacaaat
 300
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cccggtgccc atccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa
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<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

<400> 4432
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 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 35 40 45
 Leu Cys Phe Leu Ser Asp Pro Ile Arg
 50 55

<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

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 gagctgcacc tggctccggg gctggccagc tgcttgggca gcttgcgctt gttcaacctg
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<210> 4434
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 4434
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Phe Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln
      35                40                45
Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
      50                55                60
Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
65                70                75                80
Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
      85                90                95
Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
      100                105                110
Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val
      115                120                125
Pro Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met
      130                135                140
Ser His Asn Gln Ile
145

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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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cta
783

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<210> 4436

<211> 261
 <212> PRT
 <213> Homo sapiens

<400> 4436
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 Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
 35 40 45
 Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
 50 55 60
 Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
 65 70 75 80
 Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
 85 90 95
 Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
 100 105 110
 Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
 115 120 125
 Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
 130 135 140
 Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
 145 150 155 160
 Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
 165 170 175
 Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
 180 185 190
 Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
 195 200 205
 Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
 210 215 220
 Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
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 Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
 245 250 255
 Glu Glu Met Ile Leu
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<210> 4437
 <211> 620
 <212> DNA
 <213> Homo sapiens

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<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
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 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
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 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
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<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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720
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1620

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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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		20					25					30			
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
	35					40					45				
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
	50				55					60					
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
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Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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<210> 4442

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4442

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		20						25					30		
Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser
		35					40					45			
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val
	50					55					60				
Val	Leu	Asn	Glu	Phe	Lys	Arg	Val	Gly	Glu	Ser	Gly	Val	Ser	Asp	Ser
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Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met
			85					90						95	
Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro
		100						105					110		
Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp
		115				120						125			
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val
	130					135					140				
Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu
145					150					155				160	
Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly
			165					170						175	
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe
		180					185						190		
Leu	Lys	Arg	Asp	Arg	Asp	Asn	Asn	Ile	Gln	Phe	Thr	Val	Gly	Glu	Glu
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Leu	Phe	Asn	Leu	Met	Pro	Gln	Tyr	Phe	Val	Gly	Val	Ser	Ser	Arg	Pro
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Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile
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Pro	Asn	Glu	Lys	Tyr	Val	Leu	Met	Thr	Asp	Thr	Ser	Phe	Lys	Asp	Phe
			245					250						255	
Ser	Leu	Val	Glu	Val	Asn	Gly	Val	Gly	Gln	Met	Leu	Ser	Ile	Asp	Ser
		260					265					270			
Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr
	275						280					285			
Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn
	290					295					300				
Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg
305				310						315				320	
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala	Gly	Pro	Thr	Pro	Gly	Glu

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 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
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 Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
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 Arg Cys Thr Ser Ala
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<210> 4443

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4443

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692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Leu Met Pro Asn Gln Val Gln Thr Thr Leu Leu Phe Cys Val Thr Leu
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

<400> 4445
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120
actcagctgt ccccaggagt gccagaccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt cctcatcag ccgtaaatga tgatttactg ctgttaccat catcactgcc
240
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300
gatgatactc aggtacacgg gtgctcaaca gattgcttcc tcctatcctc agacggtctt
360
tgcctgcatg cagccattgg cactccatt gtgtggaagg aaaccagccc agggtcacac
420
agctggtcag cagcaacata gctgggtctca aatctaaggt gctgaccat gcctccatga
480
gggaccgcct ccaagggagg ttgatcctgg ctttggggag cctttcctgg gctgcacgaa
540
taacctccat tggtcgagac cccaaactct gctcacatct tcctttccct gtctctgctt
600
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660
cacttttggg ctaatctgac ttcaaccccc acttacttgg tctctccttt tacaaccaac
720

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 780
 tgagacgtta cacatttaac attctcttct gcacaagttg ctttctgtg agtatactaa
 840
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 900
 a
 901

<210> 4446

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4446

Met	Leu	Gln	Trp	Ile	Thr	Gln	His	Pro	Ser	Gln	Gly	Pro	Met	Pro	Leu
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Lys	Met	Asp	Leu	Pro	Pro	Gly	Asp	Pro	Gly	Val	Leu	Pro	Leu	Ser	Cys
		20					25					30			
Pro	Gln	Glu	Cys	Pro	Asp	Pro	His	Ser	Tyr	Pro	Gly	Pro	Arg	Ser	Pro
		35				40					45				
Thr	Pro	Gly	Leu	Pro	Ser	Ser	Ala	Val	Asn	Asp	Asp	Leu	Leu	Leu	Leu
	50					55				60					
Pro	Ser	Ser	Leu	Pro	Ser	Val	Thr	Lys	Gly	Leu	Pro	Arg	Cys	Gln	Leu
65					70				75					80	
Trp	Asn	Glu	Gly	Cys	Pro	Trp	Glu	Val	Met	Ile	Leu	Arg	Tyr	Thr	Gly
			85					90					95		
Ala	Gln	Gln	Ile	Ala	Ser	Ser	Tyr	Pro	Gln	Thr	Val	Phe	Ala	Cys	Met
			100					105					110		
Gln	Pro	Leu	Ala	Leu	Pro	Leu	Cys	Gly	Arg	Lys	Pro	Ala	Gln	Gly	His
		115					120					125			
Thr	Ala	Gly	Gln	Gln	Gln	His	Ser	Trp	Ser	Gln	Ile				
	130					135					140				

<210> 4447

<211> 951

<212> DNA

<213> Homo sapiens

<400> 4447

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 gtggtgggct atggccgcct cggacagtcc cttgtgtccc gccttctggc tcagggatca
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 gaactgggccc tagaacttgt ttttgtgtgg aaccgtgacc ctggacgaat ggcaggggagt
 240
 gtgccccctg ccttcagct cgaagacctc actacacttg aggaaaggca cctgcacctt
 300
 gtggtagaag tggcccatcc aaaaataatc catgaatctg gggtagaaat cctccgtcat
 360
 gcaaaccttc tgagccttcg tgtcaccatg gccacacacc ccgatggctt ccggcttgag
 420

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 480
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 600
 gacatgcacg tgggtgatgt agagctgagc ggaccccggg gcccacggg ccgaagcttt
 660
 gctgtgcaca cccgcagaga gaacctgccc gagccaggcg cggtcaccgg ctccgccacc
 720
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 780
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 840
 ccaccatccc acccctgccc tgcccactt ccccagggtc tcccttctga ctcagtaaag
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 951

<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

Arg	Cys	Pro	Lys	Ser	Gly	Cys	Pro	Gly	Leu	Val	Gln	Arg	Ala	Ala
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Ser	Ser	Pro	Gly	Ser	Gln	Ala	Pro	Asp	Thr	Ala	Leu	Arg	Ala	Met
			20					25					30	
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu
			35				40					45		
Gln	Ser	Leu	Val	Ser	Arg	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
			50			55				60				
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly
65					70				75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Arg
			85					90					95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His
			100					105				110		
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg
			115				120					125		
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu
			130			135				140				
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro
145				150					155					160
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala
			165					170					175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly
			180				185						190	
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val
			195			200					205			
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His
			210			215					220			
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala

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<400> 4449
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120
tcaagcattg gaagaattta gggaaaaaaa tcagagatta caaaaattat gggttggaag
180
attaattctg tattcctcag ttctctatct gtttacatgc ttaattgtat atttgtggta
240
tcttctgat gaatttacag caagacttgc catgacactc ccattttttg cttttccatt
300
gatcatctgg agcataagaa cagtaattat tttcttcttt tccaagagaa cagaaagaaa
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420
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480
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540
gattcgtcag cgaactgcag ctcaaagaaa cctttctcaa caccagcaag ccctaaccag
600
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660
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720
ggtatccctg ctacttcagt gcctggaatg ggtcttctac ctccaggtcc acctttagca
780
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840
gatgggtccac aaaacaggtg tgcatttata tgtcagcagt gtttttctca taatggcatg
900
gctttgaagg aagaatttga atacattgct ttctgatgtg cctactgttt tttcttgaac
960
cctgcaagaa aaaccagacc tcagggtcca agacttcttg agtttagttt tgagaagagg
1020
caggtgggtg aaggttcaag ttcagttggt cccttgccat caggaagtgt gctttcatca
1080
gacaaccagt ttaatgaaga atcttttagaa cacgatgttc ttgatgataa tacagagcag
1140
acagatgaca aaataccagc tacagaacag acaaaaccaag tgattgaaaa agcatctgac
1200
tcagaggaac cagaggagaa acaagagact gagaatgagg aagcctcagt gattgaaacc
1260

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aactccacag ttctctggagc tgattctatt cctgatcctg aactaagtgg agaattcttg
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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
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 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 180
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 240
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 300

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420
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480
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600
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780
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1440
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1637

<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

Met Gly Ala Ala Ala Ser Gln Cys Cys Val Ala Pro Ala Leu His Trp

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      20           25           30
Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
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Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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120
gcacatctat acccactctg gctctgaaag gcttgtcaac caaaaatggg cagctggggc
180

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 300
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 480
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 540
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<210> 4454

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4454

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Pro	Gly	Trp	His	Ile	Tyr	Thr	His	Ser	Gly	Ser	Glu	Arg	Leu	Val	Asn
			20				25					30			
Gln	Lys	Trp	Ala	Ala	Gly	Ala	Lys	Ala	Tyr	Leu	Asn	Lys	Gly	Ser	Lys
	35					40					45				
Gly	Pro	Leu	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Pro	Leu	Ser	Gln	Gln	Arg
	50				55					60					
Gln	Asp	Cys	Gly	Pro	Leu	Cys	Phe	Leu	Asn	Arg	Ala	Gln	Gly	Ser	Gln
65				70					75				80		
Gly	Met	Pro	Ser	Leu	Gln	His	Ser	Thr	Leu	Trp	Ser	Gln	Trp	Ser	Arg
			85					90					95		
Arg	Ser	Ser	Leu	Lys	Tyr	Tyr	Tyr	Arg	Gly	Glu	Arg	Pro	Ile	Leu	Ala
			100					105					110		
Met	Leu	Leu	Tyr	Leu	Pro	Arg	Pro	Lys	Thr	Val	Leu	Cys	Ser	Phe	Ser
	115						120					125			
Cys	Ser	Glu	Ile	Arg	Ser	Gln	Asn	Ser	Arg	Arg	His	Ser	Phe	Gly	Lys
	130					135					140				
Lys	Gly	His	Ala	Phe	Val	Leu	Tyr	Leu	Ile	Leu	Val	Ser	Glu	Ala	Leu
145				150					155					160	
Ile	Pro	Val	Asp	Cys	Gly	Leu	Arg	Trp	Ser	Pro	Pro	Gln	Asp	Pro	Gln
			165					170					175		
Leu	Gln	Arg	Gln	Arg	Arg	Met	Lys	Glu	Glu	Gln	Pro	Pro	Gln	Asp	Leu
	180						185						190		
Leu	His	Trp	Glu	Pro	His	Pro	Thr	Phe	Ser	Val	Pro	Phe	Thr	Arg	
	195						200						205		

<210> 4455

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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240
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360
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420
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480
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720
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780
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<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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20     25     30
Ile Tyr Glu Leu Thr Val Leu Lys Asp Arg Phe Thr Gly Met His Lys
35     40     45
Gly Cys Ala Phe Leu Thr Tyr Cys Glu Arg Glu Ser Ala Leu Lys Ala
50     55     60
Gln Ser Ala Leu His Glu Gln Lys Thr Leu Pro Gly Met Asn Arg Pro
65     70     75     80
Ile Gln Val Lys Pro Ala Asp Ser Glu Ser Arg Gly Asp Ser Ser Cys
85     90     95
Leu Arg Gln Pro Pro Ser His Arg Lys Leu Phe Val Gly Met Leu Asn

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100 105 110
 Lys Gln Gln Ser Glu Asp Asp Val Arg Arg Leu Phe Glu Ala Phe Gly
 115 120 125
 Asn Ile Glu Glu Cys Thr Ile Leu Arg Gly Pro Asp Gly Asn Ser Lys
 130 135 140
 Gly Cys Ala Phe Val Lys Tyr Ser Ser His Ala Glu Ala Gln Ala Ala
 145 150 155 160
 Ile Asn Ala Leu His Gly Ser Gln Thr Met Pro Gly Ala Ser Ser Ser
 165 170 175
 Leu Val Val Lys Phe Ala Asp Thr Asp Lys Glu Arg Thr Met Arg Arg
 180 185 190
 Met Gln Gln Met Ala Gly Gln Met Gly Met Phe Asn Pro Met Ala Ile
 195 200 205
 Pro Phe Gly Ala Tyr Gly Ala Tyr Ala Gln Ala Leu Met Gln Gln Gln
 210 215 220
 Ala Ala Leu Met Ala Ser Val Ala Gln Gly Gly Tyr Leu Asn Pro Met
 225 230 235 240
 Ala Ala Phe Ala Ala Ala Gln Met Gln Gln Met Ala Ala Leu Asn Met
 245 250 255
 Asn Gly Leu Ala Ala
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<210> 4457

<211> 1491

<212> DNA

<213> Homo sapiens

<400> 4457

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 240
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
		35					40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
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His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
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Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
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Asp	Lys	Lys	Leu	Cys	Tyr	Asp	Gln	Gly	Ile	Ser	Gly	His	His	Leu	Met					
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Lys	Arg	Leu	Ala	Phe	Asp	Ile	Thr	Tyr	Thr	Leu	Glu	Tyr	Ser	Arg	Leu					
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Cys	Phe	Leu	Phe	Arg	Asp	Ser	Val	Tyr	Val	Leu	Val	Val	Gly	Gly						
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Gly	Pro	Thr	Leu	Asp	Ser	Leu	Lys	Asp	Tyr	Ser	Glu	Asp	Glu	Ile	Tyr					
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Arg	Phe	Asn	Ser	Pro	Leu	Asp	Lys	Thr	Asn	Ser	Leu	Ile	Trp	Thr	Thr					
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<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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Ala	Pro	Pro	Ser	Arg	Ala	Ala	Arg	Arg	Ala	Arg	Ala	Leu	Ser	Pro	Ser
			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35					40					45			
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
	50					55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
65					70				75					80	
Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
			85					90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
			100					105					110		
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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<210> 4462

<211> 96

<212> PRT

<213> Homo sapiens

<400> 4462

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Asn	Pro	Tyr	Asn	Asn	Leu	Ile	Phe	Ile	Trp	Gly	Asn	Phe	Leu	Leu	Gln
			20					25					30		
Ser	Ser	Asn	Lys	Glu	Asn	Phe	Ile	Tyr	Leu	Ala	Asp	Phe	Pro	Lys	Glu
		35				40					45				
Leu	Ser	Ile	Lys	Tyr	Met	Ala	Arg	Ser	Phe	Arg	Gly	Ala	Val	Ala	Ile
	50				55					60					
Val	Thr	Glu	Thr	Glu	Glu	Val	Gly	Cys	Pro	Ala	Leu	Leu	Pro	Ile	Pro
65					70				75					80	
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<210> 4463

<211> 2662

<212> DNA

<213> Homo sapiens

<400> 4463

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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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			20					25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
			35				40					45			
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
			50				55				60				
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70				75				80		
Thr	Ser	Ser	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys	
			85					90					95		
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
			100					105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
			115				120					125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
			130				135				140				
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
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His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170					175		
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
			180					185				190			
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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 210 215 220
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 225 230 235 240
 Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
 245 250 255
 Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
 260 265 270
 Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
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 Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
 290 295 300
 Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
 305 310 315 320
 Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
 325 330 335
 Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
 340 345 350
 Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
 355 360 365
 Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
 370 375 380
 Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
 385 390 395 400
 Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
 405 410 415
 Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
 420 425 430
 Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
 435 440 445
 Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
 450 455 460
 Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
 465 470 475 480
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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			20					25					30		
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
			35				40					45			
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
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Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln

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1142

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<210> 4468
<211> 170
<212> PRT
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<213> Homo sapiens

<400> 4468

Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
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 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 180
 gtgctttaga ggccctctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
 240
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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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	20	25	30
Val Ser Arg	Ser Gln Cys Trp	Ser Gly Leu Gly Trp	Pro Arg Gln Leu
	35	40	45
Glu Ser Arg	Arg Trp Thr Thr		
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<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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 180
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 240
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 360
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 780
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 960
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 1020
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 1200

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 1320
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 1620
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<210> 4472

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4472

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Ala	Pro	Leu	Pro	Gly	Leu	Ser	Ala	Pro	Gly	Arg	Leu	Phe	Asp	Gln	Arg
			20					25					30		
Phe	Gly	Glu	Gly	Leu	Leu	Glu	Ala	Glu	Leu	Ala	Ala	Leu	Cys	Pro	Thr
		35					40					45			
Thr	Leu	Ala	Pro	Tyr	Tyr	Leu	Arg	Ala	Pro	Ser	Val	Ala	Leu	Pro	Val
	50					55					60				
Ala	Gln	Val	Pro	Thr	Asp	Pro	Gly	His	Phe	Ser	Val	Leu	Leu	Asp	Val
65				70					75					80	
Lys	His	Phe	Ser	Pro	Glu	Glu	Ile	Ala	Val	Lys	Val	Val	Gly	Glu	His
			85						90					95	
Val	Glu	Val	His	Ala	Arg	His	Glu	Glu	Arg	Pro	Asp	Glu	His	Gly	Phe
			100					105					110		
Val	Ala	Arg	Glu	Phe	His	Arg	Arg	Tyr	Arg	Leu	Pro	Pro	Gly	Val	Asp
		115					120					125			
Pro	Ala	Ala	Val	Thr	Ser	Ala	Leu	Ser	Pro	Glu	Gly	Val	Leu	Ser	Ile
	130					135					140				
Gln	Ala	Ala	Pro	Ala	Ser	Ala	Gln	Ala	Pro	Pro	Pro	Ala	Ala	Ala	Lys
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<210> 4473

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4473

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 180
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 240
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 480
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 720
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 780
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 1020
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<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
				20				25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
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 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 360

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<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 20 25 30
 Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 120
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 180
 aagcaccaag ttctcacaag ttattttatg tgactttgca ggaactgagg cattatatct
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 300
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 360
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 420
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<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

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Lys	Thr	Glu	Tyr	Gln	Glu	Ser	Glu	Phe	Leu	Ser	Pro	Ala	Tyr	Ser	Asp
		20					25					30			
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
	35					40					45				
Trp	Glu	Gly	Asn	Met	Lys	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr	
	50				55					60					
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70				75					80		
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
		85					90					95			
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
		100					105					110			
Leu	Gln	Ser	His	Ile	Lys										
		115													

<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 120
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 180

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240
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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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 Asp Tyr Gly Glu Pro Glu Arg Gly Gly Pro Arg Ala Ala Gln Gly
 35 40 45
 Glu Met Ser Ser Thr Ser Ser Lys Arg Ala Pro Thr Thr Ala Thr Gln
 50 55 60
 Arg Leu Lys Gln Asp Tyr Leu Arg Ile Lys Lys Asp Pro Val Pro Tyr
 65 70 75 80
 Ile Cys Ala Glu Pro Leu Pro Ser Asn Ile Leu Glu Trp His Tyr Val
 85 90 95
 Val Arg Gly Pro Glu Met Thr Pro Tyr Glu Gly Gly Tyr Tyr His Gly
 100 105 110
 Lys Leu Ile Phe Pro Arg Glu Phe Pro Phe Lys Pro Pro Ser Ile Tyr
 115 120 125
 Met Ile Thr Pro Asn Gly Arg Phe Lys Cys Asn Thr Arg Leu Cys Leu
 130 135 140
 Ser Ile Thr Asp Phe His Pro Asp Thr Trp Asn Pro Ala Trp Ser Val
 145 150 155 160
 Ser Thr Ile Leu Thr Gly Leu Leu Ser Phe Met Val Glu Lys Gly Pro
 165 170 175
 Thr Leu Gly Ser Ile Glu Thr Ser Asp Phe Thr Lys Arg Gln Leu Ala
 180 185 190
 Val Gln Ser Leu Ala Phe Asn Leu Lys Asp Lys Val Phe Cys Glu Leu
 195 200 205
 Phe Pro Glu Val Val Glu Glu Ile Lys Gln Lys Gln Lys Ala Gln Asp
 210 215 220
 Glu Leu Ser Ser Arg Pro Gln Thr Leu Pro Leu Pro Asp Val Val Pro
 225 230 235 240
 Asp Gly Glu Thr His Leu Val Gln Asn Gly Ile Gln Leu Leu Asn Gly
 245 250 255
 His Ala Pro Gly Ala Val Pro Asn Leu Ala Gly Leu Gln Gln Ala Asn
 260 265 270
 Arg His His Gly Leu Leu Gly Gly Ala Leu Ala Asn Leu Phe Val Ile

275 280 285
 Val Gly Phe Ala Ala Phe Ala Tyr Thr Val Lys Tyr Val Leu Arg Ser
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 Ile Ala Gln Glu
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<210> 4481
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 4481
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<210> 4482
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4482
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 35 40 45
 Ser Arg Thr Pro Asp Phe Trp Gly Val Pro Asp Ser Arg Gly Gly Pro
 50 55 60
 Arg Ala Gly Leu Gly His Val Gln Ser Leu Ile Asp Leu Cys Pro Phe
 65 70 75 80
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 Arg Met Gly Thr Gln
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 <211> 1852
 <212> DNA
 <213> Homo sapiens

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<210> 4484
 <211> 452
 <212> PRT
 <213> Homo sapiens

<400> 4484
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 Glu Glu Val Ile Val Val Thr Arg Asp Val Gln Lys Ala Leu Cys
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 Leu Lys Thr Asp Val Leu Val Leu Ser Cys Asp Leu Ile Thr Asp Val
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 145 150 155 160
 Asp Ser Thr Gly Lys Arg Leu Leu Phe Met Ala Asn Glu Ala Asp Leu
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 180 185 190
 Ile Arg Phe His Thr Gly Leu Val Asp Ala His Leu Tyr Cys Leu Lys
 195 200 205
 Lys Tyr Ile Val Asp Phe Leu Met Glu Asn Gly Ser Ile Thr Ser Ile
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 Arg Ser Glu Leu Ile Pro Tyr Leu Val Arg Lys Gln Phe Ser Ser Ala
 225 230 235 240
 Ser Ser Gln Gln Gly Gln Glu Glu Lys Glu Glu Asp Leu Lys Lys Lys
 245 250 255
 Glu Leu Lys Ser Leu Asp Ile Tyr Ser Phe Ile Lys Glu Ala Asn Thr
 260 265 270
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 275 280 285
 Arg Trp Glu Asp Leu Ser Arg Ser Gln Val Arg Cys Tyr Val His Ile
 290 295 300
 Met Lys Glu Gly Leu Cys Ser Arg Val Ser Thr Leu Gly Leu Tyr Met
 305 310 315 320
 Glu Ala Asn Arg Gln Val Pro Lys Leu Leu Ser Ala Leu Cys Pro Glu

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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
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Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
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Leu Met Glu Ile
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<210> 4485

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4485

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<210> 4486

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4486

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          20          25          30
Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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      35              40              45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
      50              55              60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65              70              75              80
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<210> 4487

<211> 387

<212> DNA

<213> Homo sapiens

<400> 4487

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<210> 4488

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4488

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20              25              30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
35              40              45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50              55              60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65              70              75              80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
85              90              95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
100              105              110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
115              120              125
Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

<400> 4489
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240
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300
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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			20					25					30		
Leu	Leu	Trp	Lys	Leu	Met	Trp	Arg	Glu	Pro	Gly	Ala	Tyr	Ile	Phe	Leu
		35				40						45			
Gln	Asn	Pro	Pro	Gly	Leu	Pro	Ser	Ile	Ala	Val	Cys	Trp	Phe	Val	Gly
	50				55					60					
Cys	Leu	Cys	Gly	Ser	Lys	Leu	Val	Ile	Asp	Trp	His	Asn	Tyr	Gly	Tyr
65				70				75					80		
Ser	Ile	Met	Gly	Leu	Val	His	Gly	Pro	Asn	His	Pro	Leu	Val	Leu	Leu
			85					90					95		
Ala	Lys	Trp	Tyr	Glu	Lys	Phe	Phe	Gly	Arg	Leu	Ser	His	Leu	Asn	Leu

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Cys Val Thr Asn Ala Met Arg Glu Asp Leu Ala Asp Asn Trp His Ile					
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Arg Ala Val Thr Val Tyr Asp Lys Pro Ala Ser Phe Phe Lys Glu Thr					
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Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His					
145		150		155	160
Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg					
	165		170		175
Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu					
	180		185		190
Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp					
	195		200		205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu					
	210		215		220
Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly					
225		230		235	240
Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg Leu Ile His Gln Lys His					
	245		250		255
Phe Gln His Ile Gln Val Cys Thr Pro Trp Leu Glu Ala Glu Asp Tyr					
	260		265		270
Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly Val Cys Leu His Thr Ser					
	275		280		285
Ser Ser Gly Leu Asp Leu Pro Met Lys Val Val Asp Met Phe Gly Cys					
	290		295		300
Cys Leu Pro Val Cys Ala Val Asn Phe Lys Cys Leu His Glu Leu Val					
305		310		315	320
Lys His Glu Glu Asn Gly Leu Val Phe Glu Asp Ser Glu Glu Leu Ala					
	325		330		335
Ala Gln Leu Gln Met Leu Phe Ser Asn Phe Pro Asp Pro Ala Gly Lys					
	340		345		350
Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu Ser Gln Gln Leu Arg Trp					
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Asp Glu Ser Trp Val Gln Thr Val Leu Pro Leu Val Met Asp Thr					
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<211> 6712

<212> DNA

<213> Homo sapiens

<400> 4491

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<211> 674

<212> PRT

<213> Homo sapiens

<400> 4492

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<212> DNA

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<210> 4494

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<212> PRT

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<212> DNA

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<211> 560

<212> PRT

<213> Homo sapiens

<400> 4496

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 Leu Asp Ala Lys Val Lys Leu Ile Ala Asn Thr Leu Cys Asn Ser Arg
 465 470 475 480
 Gln Leu Tyr Asp His Met Ile Asp Asp Ser Met Ile Cys Ala Gly Asn
 485 490 495
 Leu Gln Lys Pro Gly Gln Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro
 500 505 510
 Leu Thr Cys Glu Lys Asp Gly Thr Tyr Tyr Val Tyr Gly Ile Val Ser

	515		520		525										
Trp	Gly	Leu	Glu	Cys	Gly	Lys	Arg	Pro	Gly	Val	Tyr	Thr	Gln	Val	Thr
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<210> 4497

<211> 840

<212> DNA

<213> Homo sapiens

<400> 4497

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<210> 4498

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4498

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		20					25				30				
Pro	Lys	Ala	Ser	Thr	Thr	Ser	Asp	Gly	Asp	Glu	Ser	Pro	Pro	Ser	Ser
	35					40			45						
Pro	Gly	Asn	Pro	Val	Gln	Gly	Gln	Cys	Gly	Glu	Glu	Glu	Asp	Ser	Leu

50 55 60
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 65 70 75 80
 Trp Pro Leu Ser Ala Arg Arg Glu Lys Gly Leu Asn Gln Glu Pro Gln
 85 90 95
 Gly Arg Gly Leu Ala Leu Gln Lys Met Gly Gln Glu Glu Ser Pro
 100 105 110
 Pro Arg Glu Glu Arg Pro Gln Gln Ser Pro Lys Ala Ser Pro Gly Leu
 115 120 125
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 130 135 140
 Ser Phe Ala Gln Asn Gly Phe Tyr His Glu Ala Val Val Leu Phe Thr
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 Gln Ala Leu Lys Leu Asn Pro Gln Asp His Arg Leu Phe Gly Asn Arg
 165 170 175
 Ser Phe Cys His Glu Arg Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp
 180 185 190
 Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe
 195 200 205
 Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala
 210 215 220
 Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala
 225 230 235 240
 Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500

<211> 91

<212> PRT

<213> Homo sapiens

<400> 4500

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			20					25					30		
His	Gly	Leu	Ser	Pro	Leu	Asn	Val	Ile	Ala	Glu	Asp	Gly	Thr	Met	Thr
	35					40					45				
Ser	Leu	Cys	Gly	Asp	Trp	Leu	Gln	Gly	Leu	His	Arg	Phe	Val	Ala	Arg
	50					55				60					
Glu	Lys	Ile	Met	Ser	Val	Leu	Ser	Glu	Arg	Gly	Leu	Phe	Arg	Gly	Leu
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<210> 4501

<211> 1866

<212> DNA

<213> Homo sapiens

<400> 4501

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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			20					25					30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
			35					40				45			
Ala	Ala	Pro	Gly	Gln	Arg	Leu	Pro	Glu	Ser	Leu	Arg	Ala	Thr	Tyr	Arg
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Glu	Gly	Phe	Tyr	Asn	Glu	Tyr	Met	Gln	Arg	Val	Phe	Lys	Tyr	Leu	Gly

65					70					75					80
Glu	Gln	Gly	Val	Arg	Pro	Arg	Asp	Leu	Ser	Ala	Ile	Tyr	Glu	Ala	Ile
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Pro	Leu	Ser	Pro	Gly	Met	Ser	Asp	Leu	Leu	Gln	Phe	Val	Ala	Lys	Gln
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Val	Glu	Ser	Ser	Leu	Arg	Ala	Ala	Gly	His	His	Ser	Leu	Phe	Arg	Arg
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Ile	Leu	Ser	Asn	Pro	Ser	Gly	Pro	Asp	Ala	Arg	Gly	Leu	Leu	Ala	Leu
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Arg	Pro	Phe	His	Thr	His	Ser	Cys	Ala	Arg	Cys	Pro	Ala	Asn	Met	Cys
			165					170					175		
Lys	His	Lys	Val	Leu	Ser	Asp	Tyr	Leu	Arg	Glu	Arg	Ala	His	Asp	Gly
			180					185					190		
Val	His	Phe	Glu	Arg	Leu	Phe	Tyr	Val	Gly	Asp	Gly	Ala	Asn	Asp	Phe
		195					200					205			
Cys	Pro	Met	Gly	Leu	Leu	Ala	Gly	Gly	Asp	Val	Ala	Phe	Pro	Arg	Arg
		210				215					220				
Gly	Tyr	Pro	Met	His	Arg	Leu	Ile	Gln	Glu	Ala	Gln	Lys	Ala	Glu	Pro
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Ser	Ser	Phe	Arg	Ala	Ser	Val	Val	Pro	Trp	Glu	Thr	Ala	Ala	Asp	Val
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<211> 1983
<212> DNA
<213> Homo sapiens
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180
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240
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420
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660

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 780
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 1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
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 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
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 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
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 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
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 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
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 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
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 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
 180 185 190
 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
 35             40             45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
 50             55             60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
 65             70             75             80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
 85             90             95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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780

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720

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<211> 244

<212> PRT

<213> Homo sapiens

<400> 4512

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<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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Ala	Arg	Ala	Arg	Ala	Arg	Ala	Ala	Leu	Ala	Arg	Ala	Ala	Leu	Ala	Pro	50	55	60	
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Phe	His	Leu	Gln	Leu	His	Trp	Ala	Ser	Pro	Leu	Glu	Thr	Leu	Leu	Asp	145	150	155	160
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<212> DNA

<213> Homo sapiens

<400> 4517

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<211> 650
 <212> PRT
 <213> Homo sapiens

<400> 4518

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       180          185          190
Ala Glu Thr Arg Ser Gln Asp Gly Asp Thr Ala Ala Cys Ser Leu Ile
      195          200          205
Gln Ala Arg Leu Pro Leu Leu Ser Cys Cys Cys Gly Asp Asp Glu
     210          215          220
Ser Val Arg Lys Val Thr Glu His Leu Ser Gly Cys Ile Gln Gln Trp
    225          230          235          240
Gly Asp Ser Val Leu Gly Arg Arg Cys Arg Asp Leu Leu Leu Gln Leu
        245          250          255
Tyr Leu Gln Arg Pro Glu Leu Arg Val Pro Val Pro Glu Val Leu Leu
       260          265          270
His Ser Glu Gly Ala Ala Ser Ser Ser Val Cys Lys Leu Asp Gly Leu
      275          280          285
Ile His Arg Phe Ile Thr Leu Leu Ala Asp Thr Ser Asp Ser Arg Ala
     290          295          300
Leu Glu Asn Arg Gly Ala Asp Ala Ser Met Ala Cys Arg Lys Leu Ala
    305          310          315          320
Val Ala His Pro Leu Leu Leu Leu Arg His Leu Pro Met Ile Ala Ala
        325          330          335
Leu Leu His Gly Arg Thr His Leu Asn Phe Gln Glu Phe Arg Gln Gln
       340          345          350
Asn His Leu Ser Cys Phe Leu His Val Leu Gly Leu Leu Glu Leu Leu
      355          360          365
Gln Pro His Val Phe Arg Ser Glu His Gln Gly Ala Leu Trp Asp Cys
     370          375          380
Leu Leu Ser Phe Ile Arg Leu Leu Leu Asn Tyr Arg Lys Ser Ser Arg
  
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385 390 395 400
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 405 410 415
 Ile Thr Tyr Asn Ala Pro Ala Ala Ile Ser Phe Leu Gln Lys His Ala
 420 425 430
 Asp Pro Leu His Asp Leu Ser Phe Asp Asn Ser Asp Leu Val Met Leu
 435 440 445
 Lys Ser Leu Leu Ala Gly Leu Ser Leu Pro Ser Arg Asp Asp Arg Thr
 450 455 460
 Asp Arg Gly Leu Asp Glu Glu Gly Glu Glu Glu Ser Ser Ala Gly Ser
 465 470 475 480
 Leu Pro Leu Val Ser Val Ser Leu Phe Thr Pro Leu Thr Ala Ala Glu
 485 490 495
 Met Ala Pro Tyr Met Lys Arg Leu Ser Arg Gly Gln Thr Val Glu Gly
 500 505 510
 Glu Ser Gly Pro Ala Ser Pro Thr Pro Asp Leu Leu Glu Val Leu Ser
 515 520 525
 Asp Ile Asp Glu Met Ser Arg Arg Arg Pro Glu Ile Leu Ser Phe Phe
 530 535 540
 Ser Thr Asn Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg
 545 550 555 560
 Asn Leu Ala Phe Ser Leu Ala Leu Arg Ser Met Gln Asn Ser Pro Ser
 565 570 575
 Ile Ala Ala Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln
 580 585 590
 Asp Phe Glu Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala
 595 600 605
 Leu Leu Cys Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu
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 Val Gly Met Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala
 625 630 635 640
 Leu Arg Ile Leu His Met Glu Ala Val Met
 645 650

<210> 4519

<211> 2326

<212> DNA

<213> Homo sapiens

<400> 4519

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 180
 tatgtatctg gcggaattg ggaaagcttc tgagaaagtc catggggccg atgtatggga
 240
 gatgaatgtg gtcccggagg catccaaacg agggctgtgt ggtgtgctca tgtggaggga
 300
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 360
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1560
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2040

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 2160
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 2220
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 2326

<210> 4520
 <211> 617
 <212> PRT
 <213> Homo sapiens

<400> 4520
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 Thr Asn Cys Lys Gln Ala Glu Arg Pro Asn Asn Gln Gln Asn Cys Phe
 35 40 45
 Lys Val Cys Asp Trp His Lys Glu Leu Tyr Asp Trp Arg Leu Gly Pro
 50 55 60
 Trp Asn Gln Cys Gln Pro Val Ile Ser Lys Ser Leu Glu Lys Pro Leu
 65 70 75 80
 Glu Cys Ile Lys Gly Glu Glu Gly Ile Gln Val Arg Glu Ile Ala Cys
 85 90 95
 Ile Gln Lys Asp Lys Asp Ile Pro Ala Glu Asp Ile Ile Cys Glu Tyr
 100 105 110
 Phe Glu Pro Lys Pro Leu Leu Glu Gln Ala Cys Leu Ile Pro Cys Gln
 115 120 125
 Gln Asp Cys Ile Val Ser Glu Phe Ser Ala Trp Ser Glu Cys Ser Lys
 130 135 140
 Thr Cys Gly Ser Gly Leu Gln His Arg Thr Arg His Val Val Ala Pro
 145 150 155 160
 Pro Gln Phe Gly Gly Ser Gly Cys Pro Asn Leu Thr Glu Phe Gln Val
 165 170 175
 Cys Gln Ser Ser Pro Cys Glu Ala Glu Glu Leu Arg Tyr Ser Leu His
 180 185 190
 Val Gly Pro Trp Ser Thr Cys Ser Met Pro His Ser Arg Gln Val Arg
 195 200 205
 Gln Ala Arg Arg Arg Gly Lys Asn Lys Glu Arg Glu Lys Asp Arg Ser
 210 215 220
 Lys Gly Val Lys Asp Pro Glu Ala Arg Glu Leu Ile Lys Lys Lys Arg
 225 230 235 240
 Asn Arg Asn Arg Gln Asn Arg Gln Glu Asn Lys Tyr Trp Asp Ile Gln
 245 250 255
 Ile Gly Tyr Gln Thr Arg Glu Val Met Cys Ile Asn Lys Thr Gly Lys
 260 265 270
 Ala Ala Asp Leu Ser Phe Cys Gln Gln Glu Lys Leu Pro Met Thr Phe
 275 280 285
 Gln Ser Cys Val Ile Thr Lys Glu Cys Gln Val Ser Glu Trp Ser Glu

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      290              295              300
Trp Ser Pro Cys Ser Lys Thr Cys His Asp Met Val Ser Pro Ala Gly
305              310              315              320
Thr Arg Val Arg Thr Arg Thr Ile Arg Gln Phe Pro Ile Gly Ser Glu
      325              330              335
Lys Glu Cys Pro Glu Phe Glu Glu Lys Glu Pro Cys Leu Ser Gln Gly
      340              345              350
Asp Gly Val Val Pro Cys Ala Thr Tyr Gly Trp Arg Thr Thr Glu Trp
      355              360              365
Thr Glu Cys Arg Val Asp Pro Leu Leu Ser Gln Gln Asp Lys Arg Arg
      370              375              380
Gly Asn Gln Thr Ala Leu Cys Gly Gly Gly Ile Gln Thr Arg Glu Val
385              390              395              400
Tyr Cys Val Gln Ala Asn Glu Asn Leu Leu Ser Gln Leu Ser Thr His
      405              410              415
Lys Asn Lys Glu Ala Ser Lys Pro Met Asp Leu Lys Leu Cys Thr Gly
      420              425              430
Pro Ile Pro Asn Thr Thr Gln Leu Cys His Ile Pro Cys Pro Thr Glu
      435              440              445
Cys Glu Val Ser Pro Trp Ser Ala Trp Gly Pro Cys Thr Tyr Glu Asn
      450              455              460
Cys Asn Asp Pro Gln Gly Lys Lys Gly Phe Lys Leu Arg Lys Arg Arg
465              470              475              480
Ile Thr Asn Glu Pro Thr Gly Gly Ser Gly Leu Thr Gly Asn Cys Pro
      485              490              495
His Leu Leu Glu Ala Ile Pro Cys Glu Glu Pro Ala Cys Tyr Asp Trp
      500              505              510
Lys Ala Val Arg Leu Gly Asp Cys Glu Pro Asp Asn Gly Lys Glu Cys
      515              520              525
Gly Pro Gly Thr Gln Val Gln Glu Val Val Cys Ile Asn Ser Asp Gly
      530              535              540
Glu Glu Val Asp Arg Gln Leu Cys Arg Asp Ala Ile Phe Pro Ile Pro
545              550              555              560
Val Ala Cys Asp Ala Pro Cys Pro Lys Asp Cys Val Leu Ser Thr Trp
      565              570              575
Ser Thr Trp Ser Ser Cys Ser His Thr Cys Ser Gly Lys Thr Thr Glu
      580              585              590
Gly Lys Gln Ile Arg Ala Arg Ser Ile Leu Ala Tyr Ala Gly Glu Glu
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Gly Glu Ser Pro Ala Ser Asp Ala Ile
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<210> 4521

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 4521

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120

ttataccaat ataaacaatt actcaggaaa aaaagaaaat aaaaacttgc aagggtctaa
180

ataacttgct taccaccaa gatgcttgct ctaagaactg tgaagggatt caagaggaaa
 240
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 300
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 360
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 420
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 480
 aacaacaaac actcatatcc cacagttaca gaggtgaga agcctgggg caaggtacca
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 720
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 780
 tagcaaagac acagagagaa tataatttaa ggcaaaaagc ttcaatagga tttcaaagca
 840
 aaccttgcat actaaaaaaa ggaaaccaa aataaaccaa aagaaaccga aaaccatgaa
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 960
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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
			35				40					45			
Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55				60					
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
65				70						75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
			85					90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
			100					105					110		
Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
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<213> Homo sapiens

<400> 4524

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 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
 245 250 255
 Phe Phe Ser Trp Ile Gln
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<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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720
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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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          20           25           30
Glu Ala Val Asp Thr Ile Gln Pro Glu Thr Gly Ser Gln Ala Ser Ser
          35           40           45
Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
          50           55           60
Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
65          70          75          80
Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
          85          90          95
Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
          100         105         110
Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
          115         120         125
Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
          130         135         140
His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
145         150         155         160
Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
          165         170         175
Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
          180         185         190
Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
          195         200         205
Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
          210         215         220
Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
225         230         235         240
Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
          245         250         255
Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
          260         265         270
Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
          275         280         285
Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
          290         295         300
Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
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Ser Ala Ser Ser Pro Phe Ser Ala Leu Thr Val Ala Leu Phe Trp Ser
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Tyr Thr Tyr Asp Lys His Ile Phe
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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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<210> 4528

<211> 206

<212> PRT

<213> Homo sapiens

<400> 4528

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 20 25 30
 Ser Gln Lys Gly Ser Leu Gly His Leu Pro Thr Gln Pro Trp Leu Trp
 35 40 45
 Ala Ala Met Ser Pro Arg Gly Gln Glu Arg Gly Thr Ser His Ser Gln
 50 55 60
 Ala Arg Glu Pro Gln Arg Pro Gly Arg Trp Leu Leu Gly Ser Leu Gln
 65 70 75 80
 Ser Ser Pro Gly Thr Leu Gly Gln Ala Gly Thr Ala Ser Arg Arg Arg
 85 90 95
 Gly Cys Met Val Gln Arg Trp Val Gln Val Ala Thr Gly Arg Arg Ala
 100 105 110
 Val Gln Val Pro Lys Gly Ala Leu Gly Leu Ala Leu Gly Glu Thr Ser
 115 120 125
 Pro Gly Ala Ser Arg Gly Met Ser Gly Gly Ala Gly Gly Cys Trp Ala
 130 135 140
 Leu Gly Trp Ala Pro Ser Pro Val Leu Pro Ser Trp Leu Leu Glu Gly

145 150 155 160
 Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
 165 170 175
 Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
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 Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
 195 200 205

<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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 aagatggagg agaaaccctc agggcccatc ccggacatgc tggccactgc agagcccagc
 180
 tccagtgaga ccgacaagga ggtgtgtgcc ccggtgtgac cagctgcagc cccctcctcc
 240
 tccatgtcgg aggagccagg ccttgagcag gcagccacac cgccagtggg gaacgtggag
 300
 gggctggagg gatgcagcag ggctcctccc cagccccaga cagctgccag tctggccccg
 360
 gaccagccc tggcctgacc agcatagtct ccgggaccag cgaggacctg cggcctccca
 420
 gacgagccc acctccaggg aagcaaatcc cttgtctcag ccttggtgac tgcctcagtt
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 agtctc
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<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 4530
 Met Glu Glu Lys Pro Ser Gly Pro Ile Pro Asp Met Leu Ala Thr Ala
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 Glu Pro Ser Ser Ser Glu Thr Asp Lys Glu Val Leu Ser Pro Ala Val
 20 25 30
 Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
 35 40 45
 Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
 50 55 60
 Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
 65 70 75 80
 Pro Ala Leu Ala

<210> 4531
 <211> 1414
 <212> DNA
 <213> Homo sapiens

<400> 4531
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 gccgggtccct tgcagggcgg tggggcccgg gccctggacc tactccgggg cctgcgcgct
 120
 gtgagcctgg ccaacttaaa gccgaatccc ggctccaaga aaccggagag aagaccaaga
 180
 ggtcggagaa gaggtagaaa atgtggcaga ggccataaag gagaaaggca aagaggaacc
 240
 cggccccgct tgggcttga gggaggccag actccatttt acatccgaat cccaaaatac
 300
 ggggtttaacg aaggacatag tttcagacgc cagtataagc ctttgagtct caatagactg
 360
 cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
 420
 gtcaatggga gaggtgtgac catccagcca cttaaaaggg attatggtgt ccagctggtt
 480
 gaggaggggtg ctgacacctt tacggcaaaa gttaatatg aagtacagtt ggcttcagaa
 540
 ctgctattg ctgccattga aaaaaatggt ggtgtgtgta ctacagcctt ctatgatcca
 600
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 660
 aaaagaatgc ttccaccaga agaactggtt ccatattaca ctgatgcaaa gaaccgtggg
 720
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 780
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 840
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 960
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 1020
 cattttcctt atgtataatt ttccagatgg tgatgttact tttcagtgtc ctcatatgtc
 1080
 tcattttcat ctaaaattaa atggcaggaa acaaggactg catagagaaa ctgagtctgt
 1140
 gtgggttctg tctcaaagat acaaactccc tgatagtcta tggaaggaaa atgacaacta
 1200
 ttttagaata tttctagttt gttttttcag tgatcttttc atccaggcct tgttactgtt
 1260
 acagatcaga atgaaatgca caagtggaat gggattgacc tgtaggcctg ctctgccgag
 1320
 atgagagcag atggaatgag ttggtgaccc ctcttaatct gtagcctcag ggaaacacgg
 1380
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 1414

<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 Arg Gly Leu Pro Arg Val Ser Leu Ala Asn Leu Lys Pro Asn Pro Gly
 20 25 30
 Ser Lys Lys Pro Glu Arg Arg Pro Arg Gly Arg Arg Gly Arg Lys
 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
 Trp Val Val Asn Met Ala Asp Lys Lys Ile Leu Lys Pro Thr Asp Glu
 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
 290 295

<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

<400> 4533
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 120
 gcgcggcggc cccgcgcagc catggactgg ctcattggga agtccaaagc caagcccaat
 180
 ggcaagaagc ccgctgcgga ggagaggaag gcctacctgg agcctgagca caccaaggcc
 240
 aggatcacgc acttccagtt caaggagctg gtggtgctgc cccgggagat cgacctcaac
 300
 gagtggctgg ccagcaacac aacaacattt ttccaccaca tcaacctgca gtatagcaca
 360
 atctcggagt tctgcacagg agagacgtgt cagacgatgg ccgtgtgcaa cacacagtac
 420
 tactggtatg acgagcgggg gaagaaggct aagtgcacgg cccacagta cgttgacttc
 480
 gtcattgagct ccgtgcagaa gctggtgacg gatgaggacg tgttccccac aaaatacggc
 540
 agagaattcc ccagctcctt tgagtccctg gtgaggaaga tctgcagaca cctgttccac
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 gtgctggcac acattacttg ggcacacttc aaggagacgc tggccctgga gctgcacgga
 660
 caattgaaca cgctctacgt ccacttcata ctctttgctc gggagttcaa cctgctggac
 720
 cccaaagaga ccgccatcat ggacgacctc accgaggtgc tatgcagcgg gcccgccggg
 780
 gtccacagtg ggggcagtggt ggatggggcc ggcagcgggg gcccgggagc acagaaccac
 840
 gtgaaggaga gatgagcccc cccggccgga caggggcaca cgtgtgcaaa gagacggtgg
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 960
 acacgcgt
 968

<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

Thr	Arg	Ala	Gln	His	Met	Cys	Ala	His	Ala	Asp	Ala	Gly	Glu	Asn	Thr
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His	His	Arg	Leu	Phe	Ala	His	Val	Cys	Pro	Cys	Pro	Asp	Ala	Gly	Ala
			20					25						30	
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
			35					40						45	
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
			50					55						60	
Ala	Ala	Glu	Glu	Arg	Lys	Ala	Tyr	Leu	Glu	Pro	Glu	His	Thr	Lys	Ala
Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

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      115      120      125
Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
      130      135      140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145      150      155      160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165      170      175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180      185      190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195      200      205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210      215      220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225      230      235      240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245      250      255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260      265      270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
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<210> 4535
 <211> 473
 <212> DNA
 <213> Homo sapiens

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<400> 4535
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cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctngc
120
ctcagcctcc cgagtagctg ggattacagg cgtccgccac cagccccggc taatttttgt
180
attttttagta gaaacggggt ttcaccatct cggccaggct ggtcttgaac tcctgacctc
240
atgatccatc cgccttggtc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggtc gcagattaac gggaatacct cccttgggct tcctaggtga cactgtgata
360
ttcggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggaccca cattgcctgg ttttgaatcc cagcacctcc acatgttacg cgt
473

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<210> 4536
 <211> 75
 <212> PRT
 <213> Homo sapiens

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<400> 4536
Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1      5      10      15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

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      20      25      30
Pro Arg Phe Lys Gln Phe Ser Xaa Leu Ser Leu Pro Ser Ser Trp Asp
      35      40      45
Tyr Arg Arg Pro Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe Ser Arg
      50      55      60
Asn Gly Val Ser Pro Ser Arg Pro Gly Trp Ser
65      70      75

<210> 4537
<211> 2811
<212> DNA
<213> Homo sapiens

<400> 4537
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120
ataaaacggt ctgaactacc tctgcgaggt gacattgtct tctttcttca gaaggttcat
180
attccagaga gtatcttgat ttttcgggat gagattgacc tccatgcatt ataccaggct
240
ggccaaactca ccctcatcct tgtcgacat catatcttat ccaaaagtga cacagcccta
300
gaggagncca gtacgagagg tgctagacca tcgacccatc gagccgaaac actgccctcc
360
ctgnnccatg tttcagttga gctggtgggg tctgtgtcta cctggtgac cgagagaatc
420
ctgcaggggg caccagagat cttggacagg caaactgcag cccttctgca tggaaaccatc
480
atcctggact gtgtcaacat ggaccttaaa attggaaagg caaccccaaa ggacagcaaa
540
tatgtggaga aactagaggc ccttttccca gacctacca agagaaatga tatatttgat
600
tccctacaaa aggcaaagtt tgatgtatca ggactgacca ctgagcagat gctgagaaaa
660
gaccagaaga ctatctatag acaaggcgtc aagggtggcca ttagtgcaat atatatggat
720
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780
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840
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gaacgctccc actctccacc cctgaagctg acccctgcct caagtacca cctaacctc
960
catgcctatc ttcaaggcaa caccaggctc tctcgaaaaga aacttctgcc cctgctccag
1020
gaagccctgt cagcatatct tgactccatg aagatccctt caggacagcc tgagacagca
1080
gatgtgtcca gggagcaagt ggacaaggaa ttggacaggg caagtaacte cctgatttct
1140
ggactgagtc aagatgagga ggaccctccg ctgccccga cgcccatgaa cagcttggtg
1200

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gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
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1320
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1380
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1740
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1920
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1980
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2040
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2160
ccttgctcac attaaaagga agcatggagt tctaattgtc ccataaacta tgtatttttg
2220
caagacactt cactactcca ggtctcactt tccccatctg taaaacaggg ttgggactag
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2400
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2460
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2580
caacagtctc actgaacagt ggggtatgtg atgggttttg catgacatct tcagtatgag
2640
ggggacagtt tgacttcact ttgagggtgt gatgtctgta gctatgtgga aggtaaaaat
2700
agtgggtgta tcatgaacca aaggaaattt tgtttttaa cttgggtact ttattttgca
2760
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2811

<210> 4538
 <211> 437
 <212> PRT
 <213> Homo sapiens

<400> 4538
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 Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
 20 25 30
 Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
 35 40 45
 Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
 50 55 60
 Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
 65 70 75 80
 Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
 85 90 95
 Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
 100 105 110
 His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
 115 120 125
 Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
 130 135 140
 Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
 145 150 155 160
 Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
 165 170 175
 Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
 180 185 190
 Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
 195 200 205
 Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
 210 215 220
 Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
 225 230 235 240
 Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
 245 250 255
 Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
 260 265 270
 Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
 275 280 285
 His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
 290 295 300
 Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
 305 310 315 320
 His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
 325 330 335
 Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
 340 345 350
 Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
 355 360 365
 Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

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      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
      420              425              430
Ser Leu Ser Lys Lys
      435

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<210> 4539

<211> 331

<212> DNA

<213> Homo sapiens

<400> 4539

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120
tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaaag gaataactgt tcagagaaga agccgctgcc ttctctggct gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540

<211> 99

<212> PRT

<213> Homo sapiens

<400> 4540

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Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
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Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
      65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85              90              95
Pro Pro Ala

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<210> 4541

<211> 452

<212> DNA

<213> Homo sapiens

<400> 4541
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 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgtca tcaaactcctg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagaggtc
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 420
 ctggagagcc cgatgattcg cactgggtact gc
 452

<210> 4542
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4542
 Met Asp Pro Ser Ala Asp Thr Trp Asp Leu Phe Ser Pro Leu Ile Ser
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 Leu Trp Ile Asn Arg Phe Tyr Ile Tyr Leu Gly Phe Ala Val Ser Ile
 20 25 30
 Ser Leu Trp Ile Cys Val Gln Ile Val Ile Lys Thr Gln Gly Lys Asn
 35 40 45
 Leu Gln Glu Lys Ser Val Pro Lys Ala Ala Gln Asp Leu Met Thr Asn
 50 55 60
 Gly Tyr Val Ser Leu Gln Glu Lys Asp Ile Phe Val Ser Gly Val Lys
 65 70 75 80
 Ile Phe Tyr Gly Ser Gln Thr Gly Thr Ala Lys Gly Phe Ala Thr Val
 85 90 95
 Leu Ala Glu Ala Val Thr Ser Leu Asp Leu Pro Val Ala Ile Ile Asn
 100 105 110
 Leu Lys Glu Tyr Asp Pro Asp Asp His Leu Ile Glu Glu Val Thr Ser
 115 120 125

<210> 4543
 <211> 815
 <212> DNA
 <213> Homo sapiens

<400> 4543
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 agggaggagg gagagcgagt cactgcaggt ccctggcctg cggtccgcc gtggctgect
 120
 gaggcccccgc gcaccaatgc ttgtcacttt gcctcgcccg acaccctgcg ggccagagct
 180

cctctgccgc ccaccgggct aacccttccg ggcctcacca ctcccagtg gctctgctta
 240
 tccggccact gactccggct cctcgggaagc agggccaccc tcctgaaatg gcttggaacg
 300
 gggctttcca ctggtgcctt ccccagacga ttgcttgtaa tgggccagtg cctcgccagg
 360
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 420
 gcagagggct ctgactgggg acccaagaag ggctggctgt gccgccaccg ctgccccgtc
 480
 accatcactg tgctgaagag ctcgaggctg ggcccaccg cgccggcccc acgttcctcc
 540
 ccgggctcag gtcagggcca gggagtgacc agaaggtgct gaccctgtgg cctgactggc
 600
 ccagagctca cccctgaaca tgagcaagcg caaagaaacc cccatccctg ctccccaaaa
 660
 agggcgcccc caaggccatt ttgaaggtgg ggggaagccc ggattccgag aaaccgcaac
 720
 cagccgtcta cctcaggaag ctcgctaggg aggagcgcat tctatgtgac taatgcgga
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

Met	Val	Thr	Gly	Gln	Arg	Trp	Arg	His	Ser	Gln	Pro	Phe	Leu	Gly	Pro
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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
			20					25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35				40						45			
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<211> 3568

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<213> Homo sapiens

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<211> 380

<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<210> 4550

<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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Tyr	Val	Glu	Thr	Val	Asp	Ile	Asp	Gly	Glu	Thr	Asn	Leu	Lys	Phe	Arg
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Gln	Ala	Leu	Met	Val	Thr	His	Lys	Glu	Leu	Ala	Thr	Ile	Lys	Lys	Met
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His	His	Phe	Val	Gly	Cys	Leu	Glu	Trp	Asn	Asp	Lys	Lys	Tyr	Ser	Leu
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Asp	Ile	Gly	Asn	Leu	Leu	Leu	Arg	Gly	Cys	Arg	Ile	Arg	Asn	Thr	Asp
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Phe	Asp	Thr	Lys	Ile	Met	Lys	Asn	Cys	Gly	Lys	Ile	His	Leu	Lys	Arg
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Thr	Lys	Leu	Asp	Leu	Leu	Met	Asn	Lys	Leu	Val	Val	Val	Ile	Phe	Ile
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Ser	Val	Val	Leu	Val	Cys	Leu	Val	Leu	Ala	Phe	Gly	Phe	Gly	Phe	Ser
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Val	Lys	Glu	Phe	Lys	Asp	His	His	Tyr	Tyr	Leu	Ser	Gly	Val	His	Gly
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 Ala Ser Met Met Val Gln Val Trp Phe Ala Cys Tyr Asn Gly Phe Thr


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Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
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Gln Ser Phe Ala Val Val Val Ala Leu Ser Cys Leu Leu Ser Ile Thr
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Met Glu Val Ile Leu Ile Ile Lys Tyr Trp Thr Ala Leu Cys Val Ala
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<210> 4551
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<210> 4552
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 <212> PRT
 <213> Homo sapiens

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Cys Ser Gln Gln Gly Arg Gln Gly Arg Ala Pro Arg Arg Asp Pro Thr
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Gln Arg Thr Trp Glu Ser Gly Cys Gln Arg Trp Ala Ala Gly Arg Ala

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<210> 4553
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 <212> DNA
 <213> Homo sapiens

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 180
 atcatttgac aaatgcaagc atcttcctta tcaatcagct cctattgaac ttactagcac
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 <211> 705
 <212> PRT
 <213> Homo sapiens

<400> 4554
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 35 40 45
 Thr Val Asp Cys Asn Asp Leu Gly Leu Leu Thr Phe Pro Ala Arg Leu
 50 55 60
 Pro Ala Asn Thr Gln Ile Leu Leu Leu Gln Thr Asn Asn Ile Ala Lys
 65 70 75 80
 Ile Glu Tyr Ser Thr Asp Phe Pro Val Asn Leu Thr Gly Leu Asp Leu
 85 90 95
 Ser Gln Asn Asn Leu Ser Ser Val Thr Asn Ile Asn Val Lys Lys Met
 100 105 110
 Pro Gln Leu Leu Ser Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu
 115 120 125
 Pro Glu Lys Cys Leu Ser Glu Leu Ser Asn Leu Gln Glu Leu Tyr Ile
 130 135 140
 Asn His Asn Leu Leu Ser Thr Ile Ser Pro Gly Ala Phe Ile Gly Leu
 145 150 155 160
 His Asn Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile
 165 170 175
 Asn Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile
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 Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro Leu
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 Ile Asn Leu Arg Ser Leu Val Ile Ala Gly Ile Asn Leu Thr Glu Ile
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 Pro Asp Asn Ala Leu Val Gly Leu Glu Asn Leu Glu Ser Ile Ser Phe
 225 230 235 240
 Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala Leu Gln Lys Val
 245 250 255
 Val Asn Leu Lys Phe Leu Asp Leu Asn Lys Asn Pro Ile Asn Arg Ile
 260 265 270
 Arg Arg Gly Asp Phe Ser Asn Met Leu His Leu Lys Glu Leu Gly Ile
 275 280 285
 Asn Asn Met Pro Glu Leu Ile Ser Ile Asp Ser Leu Ala Val Asp Asn
 290 295 300
 Leu Pro Asp Leu Arg Lys Ile Glu Ala Thr Asn Asn Pro Arg Leu Ser
 305 310 315 320
 Tyr Ile His Pro Asn Ala Phe Phe Arg Leu Pro Lys Leu Glu Ser Leu
 325 330 335
 Met Leu Asn Ser Asn Ala Leu Ser Ala Leu Tyr His Gly Thr Ile Glu

Ser	Leu	Pro	Asn	Leu	Lys	Glu	Ile	Ser	Ile	His	Ser	Asn	Pro	Ile	Arg	
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Cys	Asp	Cys	Val	Ile	Arg	Trp	Met	Asn	Met	Asn	Lys	Thr	Asn	Ile	Arg	
		370					375					380				
Phe	Met	Glu	Pro	Asp	Ser	Leu	Phe	Cys	Val	Asp	Pro	Pro	Glu	Phe	Gln	
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Gly	Gln	Asn	Val	Arg	Gln	Val	His	Phe	Arg	Asp	Met	Met	Glu	Ile	Cys	
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Leu	Pro	Leu	Ile	Ala	Pro	Glu	Ser	Phe	Pro	Ser	Asn	Leu	Asn	Val	Glu	
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Ala	Gly	Ser	Tyr	Val	Ser	Phe	His	Cys	Arg	Ala	Thr	Ala	Glu	Pro	Gln	
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Pro	Glu	Ile	Tyr	Trp	Ile	Thr	Pro	Ser	Gly	Gln	Lys	Leu	Leu	Pro	Asn	
	450					455					460					
Thr	Leu	Thr	Asp	Lys	Phe	Tyr	Val	His	Ser	Glu	Gly	Thr	Leu	Asp	Ile	
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Asn	Gly	Val	Thr	Pro	Lys	Glu	Gly	Gly	Leu	Tyr	Thr	Cys	Ile	Ala	Thr	
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Asn	Leu	Val	Gly	Ala	Asp	Leu	Lys	Ser	Val	Met	Ile	Lys	Val	Asp	Gly	
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Ser	Phe	Pro	Gln	Asp	Asn	Asn	Gly	Ser	Leu	Asn	Ile	Lys	Ile	Arg	Asp	
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Ile	Gln	Ala	Asn	Ser	Val	Leu	Val	Ser	Trp	Lys	Ala	Ser	Ser	Lys	Ile	
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Leu	Lys	Ser	Ser	Val	Lys	Trp	Thr	Ala	Phe	Val	Lys	Thr	Glu	Asn	Ser	
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His	Ala	Ala	Gln	Ser	Ala	Arg	Ile	Pro	Ser	Asp	Val	Lys	Val	Tyr	Asn	
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Leu	Thr	His	Leu	Asn	Pro	Ser	Thr	Glu	Tyr	Lys	Ile	Cys	Ile	Asp	Ile	
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Pro	Thr	Ile	Tyr	Gln	Lys	Asn	Arg	Lys	Lys	Cys	Val	Asn	Val	Thr	Thr	
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Lys	Gly	Leu	His	Pro	Asp	Gln	Lys	Glu	Tyr	Glu	Lys	Asn	Asn	Thr	Thr	
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Thr	Leu	Met	Ala	Cys	Leu	Gly	Gly	Leu	Leu	Gly	Ile	Ile	Gly	Val	Ile	
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Cys	Leu	Ile	Ser	Cys	Leu	Ser	Pro	Glu	Met	Asn	Cys	Asp	Gly	Gly	His	
				645					650					655		
Ser	Tyr	Val	Arg	Asn	Tyr	Leu	Gln	Lys	Pro	Thr	Phe	Ala	Leu	Gly	Glu	
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Leu	Tyr	Pro	Pro	Leu	Ile	Asn	Leu	Trp	Glu	Ala	Gly	Lys	Glu	Lys	Ser	

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<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

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Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
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<211> 446

<212> DNA

<213> Homo sapiens

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<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4558

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35 40 45Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg
50 55 60Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser
65 70 75 80Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu
85 90 95Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro
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<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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<210> 4560

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<212> PRT

<213> Homo sapiens

<400> 4560

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Pro Cys Asp Pro Asp Arg Asp Gln Arg Tyr Leu Thr Thr Tyr Asn Gln
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Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
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Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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<212> PRT

<213> Homo sapiens

<400> 4562

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Ser Ser His Arg Tyr His Lys Leu Ile Trp Gly Pro Tyr Lys Met Asp
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Ser Lys Gly Asp Val Ser Gly Val Leu Ile Ala Gly Gly Glu Asn Gly
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Val Val Ile Ala Gln Asn Asp Lys His Thr Gly Pro Val Arg Ala Leu
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Ala Thr Val Trp Asp Leu Arg Glu Asn Glu Pro Ile Ile Lys Val Ser
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Asp His Ser Asn Arg Met His Cys Ser Gly Leu Ala Trp His Pro Asp
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Val Ala Thr Gln Met Val Leu Ala Ser Glu Asp Asp Arg Leu Pro Val
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Ile Gln Met Trp Asp Leu Arg Phe Ala Ser Ser Pro Leu Arg Val Leu
      245      250      255
Glu Asn His Ala Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp
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Pro Glu Leu Leu Leu Ser Cys Gly Lys Asp Ala Lys Ile Leu Cys Ser
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Asn Pro Asn Thr Gly Glu Val Leu Tyr Glu Leu Pro Thr Asn Thr Gln
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Trp Cys Phe Asp Ile Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser
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<211> 2037

<212> DNA

<213> Homo sapiens

<400> 4563

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<211> 120

<212> PRT

<213> Homo sapiens

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Ser	Ile	Leu	Gly	Ser	Asp	Asp	Ala	Thr	Thr	Cys	His	Ile	Val	Val	Leu
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Arg	His	Thr	Gly	Asn	Gly	Ala	Thr	Cys	Leu	Thr	His	Cys	Asp	Gly	Thr
			85					90					95		
Asp	Thr	Lys	Ala	Glu	Val	Pro	Leu	Ile	Met	Asn	Ser	Ile	Lys	Ser	Phe
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<210> 4569

<211> 1797

<212> DNA

<213> Homo sapiens

<400> 4569

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 120
 gacaatggcc tcgggaccct catgctgctg ggcccaggag agacagttct gaggcagaaa
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<211> 141
 <212> PRT
 <213> Homo sapiens

<400> 4570

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      20           25           30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50           55           60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
      65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85           90           95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100          105          110
Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
      115          120          125
Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
      130          135          140

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<210> 4571
 <211> 1084
 <212> DNA
 <213> Homo sapiens

<400> 4571

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180
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600
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660
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720

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 960
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 gacc
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<210> 4572

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4572

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Lys	Thr	Gln	Gln	Asn	Arg	Lys	Leu	Thr	Asp	Phe	Tyr	Pro	Val	Arg	Arg
			20					25					30		
Ser	Ser	Arg	Lys	Ser	Lys	Ala	Glu	Leu	Gln	Ser	Glu	Glu	Arg	Lys	Arg
		35				40					45				
Ile	Asp	Glu	Leu	Ile	Glu	Ser	Gly	Lys	Glu	Glu	Gly	Met	Lys	Ile	Asp
	50					55					60				
Leu	Ile	Asp	Gly	Lys	Gly	Arg	Gly	Val	Ile	Ala	Thr	Lys	Gln	Phe	Ser
65					70					75				80	
Arg	Gly	Asp	Phe	Val	Glu	Tyr	His	Gly	Asp	Leu	Ile	Glu	Ile	Thr	
			85					90					95		
Asp	Ala	Lys	Lys	Arg	Glu	Ala	Leu	Tyr	Ala	Gln	Asp	Pro	Ser	Thr	Gly
			100					105					110		
Cys	Tyr	Met	Tyr	Tyr	Phe	Gln	Tyr	Leu	Ser	Lys	Thr	Tyr	Trp		
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<210> 4573

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4573

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 120
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 180
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309

<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
85 90 95
Glu Thr Asn Pro Phe Thr Arg
100

<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

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240
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420
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600
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660
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720

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 780
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 840
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 960
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 1068

<210> 4576
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 4576
 Lys Trp Asp Pro Gly Ile Val Asp Leu Asp Asp Thr Val His Gln Leu
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 20 25 30
 Pro Ala Arg His Val Ala Thr Ala Gln Gly Glu Val Leu Pro Pro Gly
 35 40 45
 Gly Leu Gly Gly Ala Ala Gln Arg Ala Arg Gly Gln Ser His Gly Gly
 50 55 60
 Thr Val Pro Gly Asn Ala Pro Ala Ala Asp Leu Leu Ala Leu Ser Pro
 65 70 75 80
 Arg Leu Glu Arg Ser Gly Thr Ile Ser Thr His Cys Lys Leu Arg Leu
 85 90 95
 Pro Gly Ser Arg His Ser Pro Ala Ser Ala Ser
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<210> 4577
 <211> 3525
 <212> DNA
 <213> Homo sapiens

<400> 4577
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 420

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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 20          25          30
Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
 35          40          45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
 50          55          60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
 65          70          75          80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
 85          90          95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
100          105          110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
115          120          125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
130          135          140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145          150          155          160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
165          170          175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
180          185          190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
195          200          205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
210          215          220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225          230          235          240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
245          250          255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
260          265          270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
275          280          285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
290          295          300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305          310          315          320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
325          330          335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
340          345          350
Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys Arg
355          360          365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
370          375          380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385          390          395          400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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			405					410					415				
Asp	Asp	Asp	Val	Ala	Asp	Gly	Leu	Ala	Phe	His	Ala	Lys	Arg	Ser	Tyr		
			420					425					430				
Gln	Pro	His	Gly	Arg	Trp	Ala	Glu	Arg	Ala	Gly	Gln	Glu	Pro	Leu	Lys		
			435					440					445				
Thr	Ile	Leu	Asp	Ala	Gln	Asp	Leu	Asp	Cys	Tyr	Phe	Thr	Pro	Met	Lys		
			450					455					460				
Pro	Glu	Ser	Leu	Glu	Asn	Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser		
			465					470					475				
Leu	Ala	Ser	Leu	Leu	Ser	Glu	Gln	Lys	Glu	Ser	Ser	Glu	Ala	Ser	Glu		
			485					490					495				
Leu	Ile	Leu	Tyr	Ser	Leu	Glu	Ala	Glu	Val	Thr	Val	Thr	Gly	Thr	Asp		
			500					505					510				
Ser	Gln	Tyr	Cys	Arg	Lys	Glu	Val	Glu	Ala	Gly	Pro	Gly	Asp	Gln	Gln		
			515					520					525				
Gly	Asp	Ser	Tyr	Leu	Arg	Val	Ser	Ser	Asp	Ser	Pro	Lys	Asp	Gln	Ser		
			530					535					540				
Pro	Pro	Glu	Gly	Pro	Thr	Glu	Asp	Glu	Leu	Ser	Leu	Pro	Glu	Gly	Pro		
			545					550					555				
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			565					570					575				
Leu	Arg	His	His	Phe	Glu	Thr	Leu	Thr	Glu	Ser	Pro	Cys	Arg	Ala	Leu		
			580					585					590				
Gly	Asp	Val	Glu	Ala	Ser	Glu	Ala	Glu	Asp	His	Phe	Phe	Asn	Pro	Arg		
			595					600					605				
Leu	Ser	Ile	Ser	Thr	Gln	Phe	Leu	Ser	Ser	Leu	Gln	Lys	Ala	Ser	Arg		
			610					615					620				
Phe	Thr	His	Thr	Phe	Pro	Pro	Arg	Ala	Thr	Gln	Cys	Leu	Val	Lys	Ser		
			625					630					635				
Pro	Glu	Val	Lys	Leu	Met	Asp	Arg	Gly	Gly	Ser	Gln	Pro	Arg	Ala	Gly		
			645					650					655				
Thr	Gly	Tyr	Ala	Ser	Pro	Asp	Arg	Thr	His	Ser	Val	Pro	Ser	Ala	Ser		
			660					665					670				
Val	Thr	Ala	Pro	Cys	Leu	Thr	Ser	Leu	Ala	Ser	Cys	Val	Pro	Ala	Ser		
			675					680					685				
Ser	Val	Leu	Pro	Thr	Asp	Arg	Asn	Leu	Pro	Thr	Pro	Thr	Ser	Ala	Pro		
			690					695					700				
Thr	Pro	Gly	Leu	Ala	Gln	Gly	Val	His	Ala	Pro	Ser	Thr	Cys	Ser	Tyr		
			705					710					715				
Met	Glu	Ala	Thr	Ala	Ser	Ser	Arg	Ala	Arg	Ile	Ser	Arg	Ser	Ile	Ser		
			725					730					735				
Leu	Gly	Asp	Ser	Glu	Gly	Pro	Ile	Val	Ala	Thr	Leu	Ala	Gln	Pro	Leu		
			740					745					750				
Arg	Arg	Pro	Ser	Ser	Val	Gly	Glu	Leu	Ala	Ser	Leu	Gly	Gln	Glu	Leu		
			755					760					765				
Gln	Ala	Ile	Thr	Thr	Ala	Thr	Thr	Pro	Ser	Leu	Asp	Ser	Glu	Gly	Gln		
			770					775					780				
Glu	Pro	Ala	Leu	Arg	Ser	Trp	Gly	Asn	His	Glu	Ala	Arg	Ala	Asn	Leu		
			785					790					800				
Arg	Leu	Thr	Leu	Ser	Ser	Ala	Cys	Asp	Gly	Leu	Leu	Gln	Pro	Pro	Val		
			805					810					815				
Asp	Thr	Gln	Pro	Gly	Val	Thr	Val	Pro	Ala	Val	Ser	Phe	Pro	Ala	Pro		
			820					825					830				
Ser	Pro	Val	Glu	Glu	Ser	Ala	Leu	Arg	Leu	His	Gly	Ser	Ala				

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      835              840              845
Pro Ser Leu Pro Ala Pro Glu Ser Pro Gly Leu Pro Ala His Pro Ser
  850              855              860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
  865              870              875              880
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
  900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
  915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
  930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
  945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His
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Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe
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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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accaactgca tgaagcagca cttgctggag attgaccacc ggcagcagca gcagcacaca
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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

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      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

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50 55 60
 Arg Ser Gly Pro Pro Arg Gln Asp Thr Tyr Val Ser Thr Pro Ser Glu
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<400> 4582

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<212> DNA

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<400> 4584

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Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
			35				40					45			
Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
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Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
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 Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
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 His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
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 Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
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Arg Glu Gln Arg Arg Phe His Gly Gln Ala Pro Leu Glu Glu Met Arg
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Lys Ala Ala Glu Asp Leu Glu Ile Ala Thr Glu Leu Gln Asp Glu Val
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Leu Lys Leu Lys Leu Gly Leu Thr Leu Asn Lys Asp Arg Arg Arg Ala
          485          490          495
Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
			35					40				45			
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
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Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
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Phe	Gln	Ser	Ala	Leu	Pro	Lys	Ile	Asn	Ser	His	Pro	Thr	Arg	Ser	Gln
			100					105					110		
Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys
			115					120				125			
Asn	Ala	Pro	Gln	Asn	Ser	Thr	Gln	Ala	His	Ser	Glu	Asn	Lys	Cys	Ser

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 Gly Ala Ser Gln Lys Leu Pro Arg Lys Met Val Ala Ile Asp Cys Glu
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 Met Val Gly Thr Gly Pro Lys Gly His Val Ser Ser Leu Ala Arg Cys
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 Ser Ile Val Asn Tyr Asn Gly Asp Val Leu Tyr Asp Glu Tyr Ile Leu
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 Pro Pro Cys His Ile Val Asp Tyr Arg Thr Arg Trp Ser Gly Ile Arg
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 245 250 255
 Asp Thr Ser His Ile Pro Pro Leu Asn Arg Lys Ala Asp Cys Pro Glu
 260 265 270
 Asn Ala Thr Met Ser Leu Lys His Leu Thr Lys Lys Leu Leu Asn Arg
 275 280 285
 Asp Ile Gln Val Gly Lys Ser Gly His Ser Ser Val Glu Asp Ala Gln
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 Ala Thr Met Glu Leu Tyr Lys Leu Val Glu Val Glu Trp Glu Glu His
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<210> 4589

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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<210> 4590

<211> 121
 <212> PRT
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<400> 4590
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 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
 50 55 60
 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
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 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Ser Arg Ala Val Thr
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<210> 4591
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 <213> Homo sapiens

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Lys Ala Ser Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg
      35             40             45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys
      50             55             60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser
      65             70             75             80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln
      85             90             95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly
      100            105            110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys
      115            120            125
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<210> 4593

<211> 4783

<212> DNA

<213> Homo sapiens

<400> 4593

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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
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Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
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Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
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Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
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Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
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Arg	Tyr	Arg	Lys	Phe	Lys	Glu	Gln	Glu	Gln	Asp	Asp	Ser	Thr	Val	Ala					
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Cys	Arg	Phe	Phe	His	Phe	Arg	Arg	Leu	Ile	Phe	Thr	Arg	Lys	Gly	Val					
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Leu	Arg	Val	Glu	Gly	Phe	Leu	Ser	Pro	Gln	Gln	Ser	Asp	Pro	Asp	Ala					
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Met	Asn	Leu	Trp	Ile	Pro	Ser	Ser	Ser	Leu	Ala	Glu	Gly	Ile	Asp	Leu					
355							360							365						
Glu	Thr	Ser	Lys	Tyr	Ile	Leu	Ala	Asn	Val	Gly	Asp	Gln	Phe	Cys	Gln					
370							375							380						
Leu	Val	Met	Ser	Glu	Lys	Glu	Ala	Met	Met	Met	Val	Glu	Pro	His	Gln					
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Lys	Val	Ala	Trp	Lys	Arg	Ala	Val	Arg	Gly	Val	Arg	Glu	Met	Cys	Asp					
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Val	Cys	Glu	Thr	Thr	Phe	Asn	Ile	His	Trp	Val	Cys	Arg	Lys	Cys	Cys					
420							425							430						
Gly	Phe	Gly	Val	Cys	Leu	Asp	Cys	Tyr	Arg	Leu	Arg	Lys	Ser	Arg	Pro					
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Arg	Ser	Glu	Thr	Glu	Glu	Met	Gly	Asp	Glu	Glu	Val	Phe	Ser	Trp	Leu					
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Lys	Cys	Ala	Lys	Gly	Gln	Ser	His	Glu	Pro	Glu	Asn	Leu	Met	Pro	Thr					
465							470							475						
Gln	Ile	Ile	Pro	Gly	Thr	Ala	Leu	Tyr	Asn	Ile	Gly	Asp	Met	Val	His					
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Ala	Ala	Arg	Gly	Lys	Trp	Gly	Ile	Lys	Ala	Asn	Cys	Pro	Cys	Ile	Ser					
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Gln	Leu	Pro	Ser	Ile	Asn	Pro	Ser	Ala	Ser	Ser	Gly	Asn	Glu	Thr	Thr					
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Phe	Ser	Gly	Gly	Gly	Gly	Pro	Ala	Pro	Val	Thr	Thr	Pro	Glu	Pro	Asp					
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His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu					
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Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile					
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Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp					
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Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys					
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Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr					
	660	665			670
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu					
	675	680			685
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser					
	690	695			700
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu					
705	710	715			720
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala					
	725	730			735
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu					
	740	745			750
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp					
	755	760			765
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn					
	770	775			780
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu					
785	790	795			800
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu					
	805	810			815
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys					
	820	825			830
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp					
	835	840			845
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro					
	850	855			860
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp					
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Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro					
	885	890			895
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro					
	900	905			910
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr					
	915	920			925
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His					
	930	935			940
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro					
945	950	955			960
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu					
	965	970			975
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu					
	980	985			990
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys					
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Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn					
	1010	1015			1020
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln					
1025	1030	1035			1040
Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala					

	1045		1050		1055
Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro					
	1060		1065		1070
His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe					
	1075		1080		1085
Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe					
	1090		1095		1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val					
1105		1110		1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys					
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Ala His Glu Ser Lys Leu Ala Arg Ser					
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4596
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 35 40 45
 Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50 55 60
 Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
 65 70 75 80
 Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
 85 90 95
 Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
 100 105 110
 Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
 115 120 125
 Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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 Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
 145 150 155 160
 Gln Ala Arg Pro Arg Gly Ser Asn
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 Pro Gly Pro Trp Gly Val Gly Arg Gly Thr Cys Leu Thr Ala Gln Leu
 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
 115 120 125
 Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

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2314

<210> 4600
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4600
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 35 40 45
 Phe Arg Met Glu Ser Gly Ile Glu Pro Ser Val Asp Leu Glu Thr Leu
 50 55 60
 Asp Glu Arg Ile Lys Ile Arg Glu Met Ile Leu Lys Gly Gln Ile Gln
 65 70 75 80
 Glu Ala Ile Ala Leu Ile Asn Ser Leu His Pro Glu Leu Leu Asp Thr
 85 90 95
 Asn Arg Tyr Leu Tyr Phe His Leu Gln Gln Gln His Leu Ile Glu Leu
 100 105 110
 Ile Arg Gln Arg Glu Thr Glu Ala Ala Leu Glu Phe Ala Gln Thr Gln
 115 120 125
 Leu Ala Glu Gln Gly Glu Glu Ser Arg Glu Cys Leu Thr Glu Met Glu
 130 135 140
 Arg Thr Leu Ala Leu Leu Ala Phe Asp Ser Pro Glu Glu Ser Pro Phe
 145 150 155 160
 Gly Asp Leu Leu His Thr Met Gln Arg Gln Lys Val Trp Ser Glu Val
 165 170 175
 Asn Gln Ala Val Leu Asp Tyr Glu Asn Arg Glu Ser Thr Pro Lys Leu
 180 185 190
 Ala Lys Leu Leu Lys Leu Leu Leu Trp Ala Gln Asn Glu Leu Asp Gln
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 Lys Lys Val Lys Tyr Pro Lys Met Thr Asp Leu Ser Lys Gly Val Ile
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 Glu Glu Pro Lys
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<210> 4601
 <211> 916
 <212> DNA
 <213> Homo sapiens

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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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			20					25					30		
Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
			35				40					45			
Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50					55					60				
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
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Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
			85						90					95	
Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
			100					105						110	
Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
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Leu	Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln
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			165						170					175	
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
			180					185					190		
Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

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210	215	220
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225	230	235
Glu Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu		
245	250	255
Ile Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg		
260	265	270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp		
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Pro		
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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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			20					25					30		
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Glu	Ser	Glu	Ser	Pro	Gln	Glu	Ala	Gly	Arg	Gly	His	Pro	Ser	Phe	Leu
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His Phe Pro Gly Cys Ala Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro
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Glu Gly Pro Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln
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          225          230          235          240
Ala Ser Arg Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu
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          275          280          285
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Cys Leu Thr Ser Leu Ala Ser Cys Val Pro Ala Ser Ser Val Leu Pro
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Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro Thr Pro Gly Leu
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Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro Ser Pro Val Glu
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Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg Pro Ser Leu Pro
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<210> 4605

<211> 2998

<212> DNA

<213> Homo sapiens

<400> 4605

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<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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		20						25				30		Ser
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser
		35					40					45		Asp
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly
	50					55					60			Thr
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			85					90				95		Lys
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala
			100					105				110		Val
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys
		115				120						125		Gly
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val
		130				135						140		Ile
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu
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Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu
			165					170						175
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val
		180						185				190		Asn
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr
		195				200						205		Val
Arg	Glu	Ile	Ala	Ala	Gly	Gly	Ser	Arg	Lys	Leu	Ile	Asp	Cys	Lys
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 Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
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 405 410 415
 Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
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 Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
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 <212> DNA
 <213> Homo sapiens

<400> 4607

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Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg
	20						25				30				
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
	35					40					45				
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55				60					
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
	65				70				75				80		
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
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Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	Asp	Leu	Tyr					
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<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

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<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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 Gly Gly Thr Lys Val Pro Leu Glu Ala Arg Pro Val Arg Phe Leu Asp
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 Asn Phe Ser Ser Gly Arg Arg Gly Ala Thr Ser Ala Glu Ala Phe Leu
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 Pro Tyr Ala His Arg Phe Pro Pro Gln Thr Trp Leu Ser Ala Leu Arg
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 Pro Val Ser Glu Met Pro Glu His Lys Ile Gln Ser Ser Gly Gly Pro

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<210> 4611

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<212> DNA

<213> Homo sapiens

<400> 4611

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 gcctgtcttg atatatcatc tcagaaactt tcttgaatat gtgataatat atggaaaatg
 1860
 atttatagat ccagctgtgc ttaagagcca gtaatgtctt aataaacatg tggcagcttt
 1920
 tgtttgaaaa aaaaaaaaaa aaaaaa
 1946

<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

Met	Arg	Pro	Asp	Trp	Lys	Ala	Gly	Ala	Gly	Pro	Gly	Gly	Pro	Pro	Gln
1				5					10					15	
Lys	Pro	Ala	Pro	Ser	Ser	Gln	Arg	Lys	Pro	Pro	Ala	Arg	Pro	Ser	Ala
			20					25					30		
Ala	Ala	Ala	Ala	Ile	Ala	Val	Ala	Ala	Ala	Glu	Glu	Glu	Arg	Arg	Leu
		35				40						45			
Arg	Gln	Arg	Asn	Arg	Leu	Arg	Leu	Glu	Glu	Asp	Lys	Pro	Ala	Val	Glu
	50				55					60					
Arg	Cys	Leu	Glu	Glu	Leu	Val	Phe	Gly	Asp	Val	Glu	Asn	Asp	Glu	Asp
65					70				75					80	
Ala	Leu	Leu	Arg	Arg	Leu	Arg	Gly	Pro	Arg	Val	Gln	Glu	His	Glu	Asp
			85					90					95		
Ser	Gly	Asp	Ser	Glu	Val	Glu	Asn	Glu	Ala	Lys	Gly	Asn	Phe	Pro	Pro
			100					105					110		
Gln	Lys	Lys	Pro	Val	Trp	Val	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Glu	Met
	115					120					125				
Val	Asp	Met	Met	Asn	Asn	Arg	Phe	Arg	Lys	Asp	Met	Met	Lys	Asn	Ala
	130				135					140					
Ser	Glu	Ser	Lys	Leu	Ser	Lys	Asp	Asn	Leu	Lys	Lys	Arg	Leu	Lys	Glu
145				150					155				160		
Glu	Phe	Gln	His	Ala	Met	Gly	Gly	Val	Pro	Ala	Trp	Ala	Glu	Thr	Thr

20 25 30
 Gln Pro Thr Ala Glu Pro Gly Leu Gly Ala Val Val Arg Ser Ile Lys
 35 40 45
 Val Ser Gly Tyr Leu Asn Leu Leu Ala Asn Thr Ile Asp Asn Phe Thr
 50 55 60
 His Gly Leu Ala Val Ala Ala Ser Phe Leu Val Ser Lys Lys Ile Gly
 65 70 75 80
 Leu Leu Thr Thr Met Ala Ile Leu Leu His Glu Ile Pro His Glu Val
 85 90 95
 Gly Asp Phe Ala Ile Leu Leu Arg Ala Gly Phe Asp Arg Trp Ser Ala
 100 105 110
 Ala Lys Leu Gln Leu Ser Thr Ala Leu Gly Gly Leu Leu Gly Ala Gly
 115 120 125
 Phe Ala Ile Cys Thr Gln Ser Pro Lys Gly Val Glu Glu Thr Ala Ala
 130 135 140
 Trp Val Leu Pro Phe Thr Ser Gly Gly Phe Leu Tyr Ile Ala Leu Val
 145 150 155 160
 Asn Val Leu Pro Asp Leu Leu Glu Glu Glu Asp Pro Trp Arg Ser Leu
 165 170 175
 Gln Gln Leu Leu Leu Leu Cys Ala Gly Ile Val Val Met Val Leu Phe
 180 185 190
 Ser Leu Phe Val Asp
 195

<210> 4619

<211> 539

<212> DNA

<213> Homo sapiens

<400> 4619

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 120
 gtgcttggg aggctgccat gaactttcat tggtaattt ctcccaccg ggggtgcacc
 180
 tgcctgggaa cctgggggtg ggcctggctt gaaggccttg gccgtaacct gttggaagga
 240
 ggaaaagtct gtggaatttg gtcattggtc ttgaagtaga aggtagaaag aggaggcatg
 300
 tgggtcccat gatgttggg acatgtgcag acctgtgggt ggtttagttg ttgcttaata
 360
 gggccccaag aggagtcatt gtcctttctt gtgtctatg ggtgagtcgg caaccactct
 420
 tgtgtggcag ttgctggcgt gaggtctgta acattgatgg ctaagagctt gtagatttgc
 480
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 539

<210> 4620

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4620

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Met Gly Thr Thr Cys Leu Leu Phe Leu Pro Ser Thr Ser Arg Pro Met
 1           5           10           15
Thr Lys Phe His Arg Leu Phe Leu Leu Pro Thr Gly Tyr Gly Gln Gly
      20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
      35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
      50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
      65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
      85           90           95
Tyr Leu Asn Gln Glu Val Pro
      100

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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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ncttcctctc tggccgcgag cccctcttgt gattggtgtaag accttcccag ctgtgacagc
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120
cttccatgag gagaccact ctgctcccaac cctctgaaaa cctaaagcac agcccaaatac
180
ccccacccca gcagcatacc tagggagctc ctagtctctg taaaacggca ggagtagggc
240
tgggggatgct gagaaaggaa ccaggaatcc tgtccaggca ggtcctacct ctgcccattgt
300
ggctggccct catgtctggg tcttctcact ctactctcat tactcctccg cgctgtcaa
360
accttcatt gtctgcagct gatgtcactc gcagttgtga gggccgcct ctccggggga
420
caatgtggga ctgagcggcc cagccgcgt gccgcgcgcg ccgcgcgcgc aggacagccc
480
cagcgaggcc atttccagca catagaagag agattggaaa ccaacgtgca gaactgccag
540
tcccctgaca cgctgtgcc caccactgc agcccagtgc tgaatgaacc ctgcccagag
600
gtgtctgtag tgagcttctg ccctagtgc ttttgagccg gccaggttgc agcggggaca
660
cactgcagg tcgctgtggc ccagcctcg cctgacagaa tgagcggctc ggacggggga
720
ctggaggagg agccagagct cagcatcacc ctacgctgc ggatgctgat gcacgggaag
780
gaagtgggca gcatcatcgg gaagaagggc gagactgtaa agcgaatccg ggagcagagc
840
agtgcccgga tcaccatctc cgagggtccc tgccctgaac gcatcaccac catcacgggg
900
tctacagcag ctgtcttcca tgcagtctcc atgattgctt tcaaactgga tgaggacctt
960

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tgtgctgctc ctgcaaatgg tggaaatgtc tccaggcctc cagtgaacct gcgccttgct
1020
atccctgcca gtcagtgtgg ctcaactgatt gggaaggctg gcaccaagat caaggagatc
1080
cgagagacta cgggtgcccc ggtacagggtg gcaggggacc tgctcccaa ctccacagag
1140
cgagctgtta cggatatctgg ggtgcctgat gccatcatcc tgtgtgtgcg ccagatctgc
1200
gctgttatcc tggagtcccc acccaaagga gccactatcc cctaccatcc gagcctctcc
1260
ctaggtactg ttcttctctc tgccaaccag ggcttctctg tccagggtca gtatggggct
1320
gtgacccag ctgaggtcac caagctccag cagctctcaa gccatgcggt cccctttgcc
1380
acaccagcg tggtgccagg actggatccc ggcacacaga ccagctcaca ggagttcttg
1440
gttcccaacg atttgattgg ctgtgtgatc gggcgccagg gcagcaagat cagcgagatc
1500
cggcagatgt caggggcaca tatcaagatc gggaaccaag cagagggcgc tggggagcgg
1560
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1620
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1680
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1800
ctaccacctg ctccccagg gccaccgccc ggcttgccgg cctacactgc caagatggca
1860
gcggccaatg ggagcaagaa agctgaacgg cagaaattct cccctactg aggccagctg
1920
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1980
caaggagact ccacctggg gtcccaaacg ccgctaacgc ccagacgcat ggatgcaccc
2040
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2100
ggggtctgag ctgcggcagc cccagggcag ggggcctac ctctcagct ctgtgcttgg
2160
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2220
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2280
ccgttgggta gctggggcca ggcttctctc cccaccacct gcagatttct tgtgcttcc
2340
actgataccc ttttgactgg aatgaactgg ctgggcttgt cagggggcac cccaaagagg
2400
gggcactgcc aggtagctgg gggagtggca tggggcaggg gccagttct cagcagcaga
2460
cactctgtac agttttttca atccctgttt ttgaataaat attctcagcg accaaaaaaa
2520
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2580

ccccccct
2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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Met Ser Gly Ser Asp Gly Gly Leu Glu Glu Glu Pro Glu Leu Ser Ile
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Thr Leu Thr Leu Arg Met Leu Met His Gly Lys Glu Val Gly Ser Ile
      20              25              30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
      35              40              45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
      50              55              60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
      65              70              75              80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
      85              90              95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
      100             105             110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
      115             120             125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
      130             135             140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
      145             150             155             160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
      165             170             175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
      180             185             190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
      195             200             205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
      210             215             220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
      225             230             235             240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
      245             250             255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
      260             265             270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
      275             280             285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
      290             295             300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
      305             310             315             320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
      325             330             335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
      340             345             350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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          355              360              365
Pro Pro Ala Ser Pro Gly Pro Pro Pro Gly Leu Ala Ala Tyr Thr Ala
          370              375              380
Lys Met Ala Ala Ala Asn Gly Ser Lys Lys Ala Glu Arg Gln Lys Phe
385              390              395              400
Ser Pro Tyr

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```

<210> 4623
<211> 2220
<212> DNA
<213> Homo sapiens

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<400> 4623
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120
gtttctcctt taagagctac atccccctct aagagtgtgg cccatgggca ggcacctgag
180
atgcctctag tgaagaaaaa gaagaagaaa aagaaggggtg tcagcaccct ttgcgaggag
240
catgtagaac ctgagaccac gctgcctgct agacggacag agaagtcacc cagcctcagg
300
aagcaggtgt ttggccactt ggagttcctc agtggggaaa agaaaaataa gaagtcacct
360
ctagccatgt cccatgcctc tggggtgaaa acctcccag accctagaca gggtagaggag
420
gaaaccagag ttggcaagaa gctcaaaaaa cacaagaagg aaaaaaggg ggcccaggac
480
cccacagcct tctcgggtcca ggacccttgg ttctgtgagg ccaggagggc cagggatgtt
540
ggggacactt gctcagtggg gaagaaggat gaggaacagg cagccttggg gcagaaacgg
600
aagcggaaga gccccagaga acacaatggg aaggtgaaga agaaaaaaa aatccaccag
660
gagggagatg ccctcccagg ccactccaag ccctccaggt ccatggagag cagccctagg
720
aaaggaagta aaaagaagcc agtcaaagtt gaggtccgg aatacatccc cataagtgat
780
gaccctaagg cctccgcaaa gaaaaagatg aagtccaaaa agaaggtaga gcagccagtc
840
atcgaggagc cagctctgaa aaggaagaaa aagaagaaga ggaaagagag tggggtagca
900
ggagaccctt ggaaggagga aacagacacg gacttagagg tgggtgttga aaaaaaggc
960
aacatggatg aggcgcacat agaccagggt aggcgaaagg ccttgcaaga agagatcgat
1020
cgcgagtcag gcaaaacgga agcttctgaa accaggaagt ggacgggaac ccagtttggc
1080
cagtgggata ctgctggttt tgagaacgag gaccaaaaac tgaaatttct cagacttatg
1140
ggtggcttca aaaacctgtc cccttcgttc agccgccccg ccagcacgat tgcaaggccc
1200

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aacatggccc tcggcaagaa ggccggctgac agcctgcagc agaatctgca gcgggactac
 1260
 gaccggggcca tgagctggaa gtacagccgg ggagccggcc tcggcttctc caccgcccc
 1320
 aacaagatct ttacattga caggaacgct tccaagtcag tcaagctgga agattaaact
 1380
 ctagagtttt gtcccccaa aactgccaca attgcttga ttattccatt tatgctggag
 1440
 attacaaatt ttttttga aaaaatcaga tcttggtgag gacctcgagc agtaagatat
 1500
 aaataactcc cataagctta gcgttccagt aatggaacac taggcataaa tggtttattc
 1560
 agttgtgcaa atgaaagcca tctgacagtt ggctcacatt gaacacctgt ggagattaag
 1620
 gacgaggaca actatattga tgggcttggg tgaactgggg cagggcagct catatttcgg
 1680
 gagccaggag aacgagtgag tgctaaaacc tctgttttc tgtgttaaac attccgtccc
 1740
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 1800
 atactagtgt tttccttaat gtatttaac ttcataatta tgaaatgggt gctattatta
 1860
 gccccatctt atagatgagg caactgaggt tcagggataa agtaataaaa ttgcctgggg
 1920
 tcaccagcc actaagtga ggggtgtgta cttttgtacc cgaagcccta agttcactat
 1980
 tcgcactct gaatgtcccc tttagggagt ttccaccaga atcctcgttg gggattgaaa
 2040
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 2100
 gaatgaggaa cggagaatcg caagctcctt ttccttcctt ttcctttccc ctgtcataga
 2160
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 2220

<210> 4624
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 4624
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 Leu Lys Arg Lys Lys Lys Lys Arg Lys Glu Ser Gly Val Ala Gly
 20 25 30
 Asp Pro Trp Lys Glu Glu Thr Asp Thr Asp Leu Glu Val Val Leu Glu
 35 40 45
 Lys Lys Gly Asn Met Asp Glu Ala His Ile Asp Gln Val Arg Arg Lys
 50 55 60
 Ala Leu Gln Glu Glu Ile Asp Arg Glu Ser Gly Lys Thr Glu Ala Ser
 65 70 75 80
 Glu Thr Arg Lys Trp Thr Gly Thr Gln Phe Gly Gln Trp Asp Thr Ala
 85 90 95
 Gly Phe Glu Asn Glu Asp Gln Lys Leu Lys Phe Leu Arg Leu Met Gly

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          100          105          110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
          115          120          125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
          130          135          140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145          150          155          160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
          165          170          175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
          180          185

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<210> 4625
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 4625
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 120
 ctggaggagc agcggcagtc agaacgtctc cagaggcagc tgcagcagga gcatgcctac
 180
 ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
 240
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 300
 aaaccagcct gggcccgaga gggagaagag agac
 334

<210> 4626
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 4626
Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
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Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
20     25     30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
35     40     45
Arg Leu Gln Arg Gln Leu Gln Glu His Ala Tyr Leu Lys Ser Leu
50     55     60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln
65     70     75     80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
85     90     95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
100    105    110

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<210> 4627
 <211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttga gcctcttcca tcaagtggac ctgattttgg aggattagga
180
gaagaagctg aatttgttga agttgagcct gaagctaaac aggaaattct tgaaaacaaa
240
gatgtggttg ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatatcatc
300
atttgtgaaa ttggagatgt tttcaaggcc aaaaacctaa ttgaggtaat gcggaaatct
360
catgaagccc gtgaaaaatt gctccgtctt ggaattttta gacaagtga tgttttgatt
420
gacacatgtc aagggtatgg cgcacttcca aatgggttag acgttacctt tgaagtaact
480
gaattgagga gattaacggg cagttataac accatggttg ggaacaatga aggcagtatg
540
gtacttgccc tcaagcttcc taatcttctt ggtcgtgcag aaaaggtgac ctttcagttt
600
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660
ttcgaagaa atttctctgt aaacttatat aaagttactg gacagttccc ttggagctca
720
ctgctgggaga cggacagagg aatgtcagct gactacagtt tcccatatg gaagaccagc
780
cacactgtca agtgggaagg cgtatggcga gaactgggct gcctctcaag gacggcgtca
840
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900
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960
gaactggcag gctacactgg cggggatgtg agcttcatca aagaagattt tgaacttcag
1020
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1080
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1140
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1200
ggagaagcgt actgggcccgg cggcctgcac ctctacacce cattaccttt ccggccaggc
1260
cagggtggct ttggagaact ttccgaaca cacttcttcc tcaacgcagg aaacctctgc
1320
aacctcaact atggggaggg ccccaaagct catattcgta agctggctga gtgcatccgc
1380
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1500

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 1560
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 1620
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 1680
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

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Pro	Asp	Phe	Gly	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu
			20				25						30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
		35				40						45			
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
	50					55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
			85						90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
		115					120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
	130					135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155				160	
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
			165					170					175		
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
			180					185					190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
	195						200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
	210					215						220			
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225					230					235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
			245					250					255		
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
		260					265						270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
	275						280					285			
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
	290					295					300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

305 310 315 320
 Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
 325 330 335
 Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
 340 345 350
 Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
 355 360 365
 Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
 370 375 380
 Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
 385 390 395 400
 Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
 405 410 415
 Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
 420 425 430
 Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
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 Gly Ile Arg Phe Leu
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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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 360
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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630
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 Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
 35 40 45
 Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
 50 55 60
 Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
 65 70 75 80
 Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
 85 90 95
 Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
 100 105 110
 Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
 115 120 125
 Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
 130 135 140

<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

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 360
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 420
 gccaaagagc atggagctgt agctgtggag cgagtgaaca agagccctgg agagaccagt
 480
 aaaccgagac catttgcagg aggtggctac cgccttgggg cagcaccaga ggaagagtct
 540
 gcctatgtgg caggagaaaa gaggcagcat tccagccaag atgttcatgt agtattgaaa
 600
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 aatgcccagt ttctggagtc tatccgcaga ggggaggtgc cagcagagct tcggaggcta
 720

gctcacgggtg gacaggtgaa cttggatatg gaggaccatc gggacgagga ctttgtgaag
780
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1380
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1560
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1920
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2040
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2100
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2280
tccaccacc ctataagttt gattgctatg caggtttggg agaggaggcc tattgggctc
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 2580
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 2640
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<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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Gly	Ala	Glu	Glu	Asp	Arg	Ala	Arg	Phe	Phe	Leu	Glu	Ser	Ala	Gly	Trp
		20						25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
	50					55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
	65				70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
		85						90					95		
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
		100						105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115				120						125			
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
	130					135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Tyr	Arg	Leu	Gly	
	145				150				155					160	
Ala	Ala	Pro	Glu	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln
			165					170						175	
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
		180						185					190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
	195						200					205			
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
	210					215					220				
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
	225				230					235				240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
		245						250						255	
Gly	Glu	Gly	Gln	Lys	Leu	Gly	Ser	Thr	Ala	Pro	Gln	Val	Leu	Ser	Thr

	260		265		270										
Ser	Ser	Pro	Ala	Gln	Gln	Ala	Glu	Asn	Glu	Ala	Lys	Ala	Ser	Ser	Ser
	275						280					285			
Ile	Leu	Ile	Asp	Glu	Ser	Glu	Pro	Thr	Thr	Asn	Ile	Gln	Ile	Arg	Leu
	290						295					300			
Ala	Asp	Gly	Gly	Arg	Leu	Val	Gln	Lys	Phe	Asn	His	Ser	His	Arg	Ile
305					310					315					320
Ser	Asp	Ile	Arg	Leu	Phe	Ile	Val	Asp	Ala	Arg	Pro	Ala	Met	Ala	Ala
			325						330				335		
Thr	Ser	Phe	Ile	Leu	Met	Thr	Thr	Phe	Pro	Asn	Lys	Glu	Leu	Ala	Asp
			340					345					350		
Glu	Ser	Gln	Thr	Leu	Lys	Glu	Ala	Asn	Leu	Leu	Asn	Ala	Val	Ile	Val
	355						360					365			
Gln	Arg	Leu	Thr												
	370														

<210> 4633
 <211> 873
 <212> DNA
 <213> Homo sapiens

<400> 4633
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 120
 ctgcctccag acgtggcac tgaggggggc caccgtcagg cactcagtca ggctgctcag
 180
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 240
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 300
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 360
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 420
 atgcatcagg agcagccgat ccaggatatgt gatggcaaag ggagacagag acttgatgcc
 480
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 540
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 600
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 660
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 720
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 780
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 840
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 873

<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634
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 20 25 30
 Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
 210 215 220
 Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
 225 230 235 240
 Lys Leu

<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635
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 120
 agtggggccc gaggaggaag gccggtggtg tgtgggcaga gccagccagt ggtggccttc
 180
 ctctcccca agatgagttt tgtagcccag gtgtttgcac actcacactt gctcactccc
 240
 tcacacacaa aacctcact ctttgctttt tctggggaga gggaggccac tggcagaagc
 300

gcctaccctg gccacagtca gttcccatc tcattttcta agaattttat cacaaaaacag
 360
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 384

<210> 4636
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 4636
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 20 25 30
 Lys Glu Val Lys Trp Gly Pro Arg Arg Lys Ala Gly Gly Val Trp Ala
 35 40 45
 Glu Pro Ala Ser Gly Gly Leu Pro Pro Pro Glu Asp Glu Phe Cys Ser
 50 55 60
 Pro Gly Val Cys Thr Leu Thr Leu Ala His Ser Leu Thr His Lys Thr
 65 70 75 80
 Leu Thr Leu Cys Phe Phe Trp Gly Glu Gly Gly His Trp Gln Lys Arg
 85 90 95
 Leu Pro Trp Pro Gln Ser Val Pro Ile Leu Ile Phe
 100 105

<210> 4637
 <211> 2162
 <212> DNA
 <213> Homo sapiens

<400> 4637
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 180
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 240
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 360
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 420
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 480
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 660

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720
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780
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840
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960
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1740
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2040
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2160
ga
2162

<210> 4638

<211> 446
 <212> PRT
 <213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
 35          40          45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
 50          55          60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
 65          70          75          80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
 85          90          95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
 100         105         110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
 115         120         125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
 130         135         140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
 145         150         155         160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
 165         170         175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
 180         185         190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
 195         200         205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
 210         215         220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
 225         230         235         240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
 245         250         255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
 260         265         270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
 275         280         285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
 290         295         300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
 305         310         315         320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
 325         330         335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
 340         345         350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
 355         360         365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
 370         375         380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400
Glu Asp Gly Gly Ala Leu Arg Gly Glu Val Ile Pro Glu His Glu Phe						
	405		410		415	
Ala Thr Gly Pro Val Cys Leu Asp Asp Glu Asn Glu Phe Pro Pro Ile						
	420		425		430	
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<210> 4639
 <211> 1007
 <212> DNA
 <213> Homo sapiens

<400> 4639
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 180
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 240
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 300
 aattctcttt taaaaaatta acagtaaaaa taggagttac ttactatcta gatgaacaca
 360
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 840
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 900
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<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640
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 Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
 35 40 45
 Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
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 His Leu Ser Leu Pro Ser Ser
 65 70

<210> 4641
 <211> 1873
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 360
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 480
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 720
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 780
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 960
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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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			20					25					30		
Gln	Trp	Asn	Tyr	Cys	Thr	Leu	Ser	Gln	Glu	Ile	Leu	Arg	Arg	Pro	Ile
		35				40					45				
Val	Ala	Cys	Glu	Leu	Gly	Arg	Leu	Tyr	Asn	Lys	Asp	Ala	Val	Ile	Glu
	50				55					60					
Phe	Leu	Leu	Asp	Lys	Ser	Ala	Glu	Lys	Ala	Leu	Gly	Lys	Ala	Ala	Ser
65				70				75						80	
His	Ile	Lys	Ser	Ile	Lys	Asn	Val	Thr	Glu	Leu	Lys	Leu	Ser	Asp	Asn
			85					90					95		
Pro	Ala	Trp	Glu	Gly	Asp	Lys	Gly	Asn	Thr	Lys	Gly	Asp	Lys	His	Asp
		100					105						110		
Asp	Leu	Gln	Arg	Ala	Arg	Phe	Ile	Cys	Pro	Val	Val	Gly	Leu	Glu	Met
	115					120						125			
Asn	Gly	Arg	His	Arg	Phe	Cys	Phe	Leu	Arg	Cys	Cys	Gly	Cys	Val	Phe
	130					135				140					
Ser	Glu	Arg	Ala	Leu	Lys	Glu	Ile	Lys	Ala	Glu	Val	Cys	His	Thr	Cys

145 150 155 160
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 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
 180 185 190
 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
 245 250 255
 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
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 Glu Glu Ser Glu Ala Tyr Lys Ser Leu Phe Thr Thr His Ser Ser Ala
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 Lys Arg Ser Lys Glu Glu Ser Ala His Trp Val Thr His Thr Ser Tyr
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 Cys Phe
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<210> 4643

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 4643

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<210> 4644

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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Gly	Gly	Arg	Gly	Ile	Gly	Ala	Gly	Ile	Val	Arg	Ala	Phe	Val	Asp	Ser
		20					25						30		
Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly	Gly	Arg	Ala
		35					40					45			
Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu	Cys	Asp	Val	Thr
	50					55					60				
Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
65					70					75				80	
Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala	Gly	His	His	Pro	Pro	Pro
			85						90				95		
Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
		100						105					110		
Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr	Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr
	115					120						125			
Leu	Arg	Lys	Ser	Gln	Gly	Asn	Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly
	130				135					140					
Ala	Ile	Gly	Gln	Ala	Gln	Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala
145				150						155				160	
Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
			165						170					175	
Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
		180						185					190		
Glu	Glu	Leu	Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu
	195					200						205			
Gly	Met	Leu	Ala	Gln	Pro	Leu	Gly	Arg	Met	Gly	Gln	Pro	Ala	Glu	Val
	210				215						220				
Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
225				230						235				240	
Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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Ala	Ser	Arg	Ser	Thr	Pro	Val	Asp	Ala	Pro	Asp	Ile	Pro	Ser		
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<210> 4645
<211> 1725
<212> DNA
<213> Homo sapiens

<400> 4645
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120
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180
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360
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420
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1440

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<210> 4646
 <211> 358
 <212> PRT
 <213> Homo sapiens

<400> 4646
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 Pro Arg Ser Ala Ser Ile Lys Asp Ile Lys Lys Ala Tyr Arg Lys Leu
 35 40 45
 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
 50 55 60
 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
 65 70 75 80
 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
 85 90 95
 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
 100 105 110
 Phe Gly Phe Met Phe Gly Gly Thr Pro Arg Gln Gln Asp Arg Asn Ile
 115 120 125
 Pro Arg Gly Ser Asp Ile Ile Val Asp Leu Glu Val Thr Leu Glu Glu
 130 135 140
 Val Tyr Ala Gly Asn Phe Val Glu Val Val Arg Asn Lys Pro Val Ala
 145 150 155 160
 Arg Gln Ala Pro Gly Lys Arg Lys Cys Asn Cys Arg Gln Glu Met Arg
 165 170 175
 Thr Thr Gln Leu Gly Pro Gly Arg Phe Gln Met Thr Gln Glu Val Val
 180 185 190
 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
 195 200 205
 Glu Val Glu Ile Glu Pro Gly Val Arg Asp Gly Met Glu Tyr Pro Phe
 210 215 220
 Ile Gly Glu Gly Glu Pro His Val Asp Gly Glu Pro Gly Asp Leu Arg
 225 230 235 240
 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
 260 265 270
 Phe Glu Met Asp Ile Thr His Leu Asp Gly His Lys Val His Ile Ser
 275 280 285
 Arg Asp Lys Ile Thr Arg Pro Gly Ala Lys Leu Trp Lys Lys Gly Glu


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      290              295              300
Gly Leu Pro Asn Phe Asp Asn Asn Asn Ile Lys Gly Ser Leu Ile Ile
305              310              315              320
Thr Phe Asp Val Asp Phe Pro Lys Glu Gln Leu Thr Glu Glu Ala Arg
      325              330              335
Glu Gly Ile Lys Gln Leu Leu Lys Gln Gly Ser Val Gln Lys Val Tyr
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Asn Gly Leu Gln Gly Tyr
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<210> 4647
 <211> 791
 <212> DNA
 <213> Homo sapiens

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300
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480
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660
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791

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<210> 4648
 <211> 188
 <212> PRT
 <213> Homo sapiens

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<400> 4648
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 Leu Asn Glu Lys Thr Pro Lys Gly His Ser Val Phe Met Asp Ile Phe
 35 40 45
 Glu Leu Val Val Glu Asn Gly Val Phe Val Ala Asn Pro Leu Gln Glu
 50 55 60
 Arg Thr Ile Leu Met Arg Lys Glu Gly Glu Ser Ala Lys Ser Ile Asn
 65 70 75 80
 Glu Met Leu Leu Ser Arg Leu Ser Arg Tyr Arg Ala Ser Pro Ser Ala
 85 90 95
 Thr Leu Ala Ala Leu Thr Gly Ser Thr Ile Ser Asn Thr Leu Lys Glu
 100 105 110
 Asp Gln Ala Ala Asn Thr Ser Cys Gly Leu Pro Leu Lys Met Leu Arg
 115 120 125
 Lys Thr Pro Ile Tyr Thr Cys Gly Thr Tyr Leu Val Met Leu Val Pro
 130 135 140
 Pro Pro Gly Gly Ser Gly Ser Ser Ala Thr Arg Ser Leu Phe Gly Gly
 145 150 155 160
 Thr Ser Gly Leu Ser Ser Leu Lys Ile Leu Ala Ser Ser Leu Val Tyr
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 Asn Ile Ser Asp Gly Gln Phe Thr Ser Arg Ala Asp
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<210> 4649

<211> 3276

<212> DNA

<213> Homo sapiens

<400> 4649

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<210> 4650
 <211> 965
 <212> PRT
 <213> Homo sapiens

<400> 4650
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 Gly Leu Gln Asp Gln Leu Leu Gly Ile Val Ala Ala Lys Glu Lys Pro
 50 55 60
 Glu Leu Glu Glu Lys Lys Asn Gln Leu Ile Val Glu Ser Ala Lys Asn
 65 70 75 80
 Lys Lys His Leu Lys Glu Ile Glu Asp Lys Ile Leu Glu Val Leu Ser
 85 90 95
 Met Ser Lys Gly Asn Ile Leu Glu Asp Glu Thr Ala Ile Lys Val Leu
 100 105 110
 Ser Ser Ser Lys Val Leu Ser Glu Glu Ile Ser Glu Lys Gln Lys Val
 115 120 125
 Ala Ser Met Thr Glu Thr Gln Ile Asp Glu Thr Arg Met Gly Tyr Lys

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Val	Arg	Glu	Phe	Ile	Ala	Glu	His	Met	Gly	Lys	Leu	Tyr	Ile	Glu	Ala		
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Pro	Thr	Phe	Asp	Leu	Gln	Gly	Ser	Tyr	Asn	Asp	Ser	Ser	Cys	Cys	Ala		
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Pro	Leu	Ile	Phe	Val	Leu	Ser	Pro	Ser	Ala	Asp	Pro	Met	Ala	Gly	Leu		
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Pro	Ser	Glu	Lys	Phe	Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ile	Lys	Met		
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Thr	Asn	Glu	Pro	Pro	Lys	Gly	Leu	Arg	Ala	Asn	Leu	Leu	Arg	Ser	Tyr		
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Val	Val	Gln	Glu	Arg	Arg	Asn	Phe	Gly	Pro	Leu	Gly	Trp	Asn	Ile	Pro		
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Tyr	Glu	Phe	Asn	Glu	Ser	Asp	Leu	Arg	Ile	Ser	Met	Trp	Gln	Ile	Gln		
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 580 585 590
 Arg Arg Leu Leu Ser Leu Leu Ser Met Phe Tyr Cys Lys Glu Ile
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 610 615 620
 Pro His Gly Ser Tyr Gln Ser Tyr Ile Asp Tyr Leu Arg Asn Leu Pro
 625 630 635 640
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 645 650 655
 Thr Lys Asp Asn Gln Glu Thr Asn Gln Leu Phe Glu Gly Val Leu Leu
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 Thr Leu Pro Arg Gln Ser Gly Gly Ser Gly Lys Ser Pro Gln Glu Val
 675 680 685
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 690 695 700
 Asp Leu Glu Glu Val Met Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser
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 Met Asn Thr Val Leu Arg Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr
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 Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
 740 745 750
 Gln Val Leu Met Ser Ser Glu Leu Glu Glu Val Phe Asn Ser Met Leu
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 Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
 770 775 780
 Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
 785 790 795 800
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 820 825 830
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 835 840 845
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 850 855 860
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 865 870 875 880
 Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
 885 890 895
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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20     25     30
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35     40     45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50     55     60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65     70     75     80
Leu Met Lys Pro Asp Gly Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr
85     90     95
Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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      115      120      125
Thr Ser Ser Lys Gln Ile Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu
      130      135      140
Pro Trp Leu Gly Leu Gly Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg
145      150      155      160
Ser Arg Arg Lys Met Leu Thr Pro Thr Phe His Phe Thr Ile Leu Glu
      165      170      175
Asp Phe Leu Asp Ile Met Asn Glu Gln Ala Asn Ile Leu Val Lys Lys
      180      185      190
Leu Glu Lys His Ile Asn Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile
      195      200      205
Thr Leu Cys Ala Leu Asp Ile Ile Cys Glu Thr Ala Met Gly Lys Asn
210      215      220
Ile Gly Ala Gln Ser Asn Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr
225      230      235      240
Arg Met Ser Glu Met Ile Phe Pro Arg Ile Lys Met Pro Trp Leu Trp
      245      250      255
Leu Asp Leu Trp Tyr Leu Met Phe Lys Glu Gly Trp Glu His Lys Lys
      260      265      270
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<210> 4653
 <211> 1276
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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			20					25					30		
Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35					40					45			
Lys	Glu	Arg	Pro	Ser	Arg	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser
	50					55					60				
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65					70					75				80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
				85					90					95	
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100					105					110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115					120					125			
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
	130					135					140				
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145					150					155				160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165						170					175	
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
			180					185					190		
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

195	200	205
Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His		
210	215	220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe		
225	230	235
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val		
245	250	255

<210> 4655

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4655

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<210> 4656

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4656

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20	25	30
Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala		
35	40	45
Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln		
50	55	60
His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly		
65	70	75
Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln		
85	90	95
Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu		
100	105	110
Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His		
115	120	125
Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg		

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 Gly Arg Gln His His Gly Arg Pro
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<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 180
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 720
 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
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 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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864

<210> 4660

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4660

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Asp Gly Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala
          20           25           30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
      35           40           45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
 50           55           60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65           70           75           80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
      85           90           95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
      100           105           110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
      115           120           125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
130           135           140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145           150           155           160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
      165           170           175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
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<210> 4661

<211> 153

<212> DNA

<213> Homo sapiens

<400> 4661

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153
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<210> 4662

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4662

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Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu
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1	5	10	15
Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
	35	40	45
Gly Gln Phe			
50			

<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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120
cagacggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctcagagctc
180
caggtgcccc cccctggcag agccggccta ctgaacacct ctggtaccaa aggcttagaa
240
tgcttctcctt caactcccac catgaattct tacttttata agttcatgat caaccttctc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
360
ctgtgcctcc tgctgaatgc ggagaacatc ttccactcaa tggcagacat cctgctgcgg
420
gaggaggacc tcaagtctgc ctgcaccatg gtccacgccc tcaacacccat cctgctgacc
480
tccacagagc tcttccagct aaggaaccag ctgaaggacc tgaagaccct ggagagccag
540
aacctgttct gctgcctgta ccgctcctgg tgccacaacc cagtcaccac ggtgtccctc
600
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780
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840
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900
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960
gagaagggtcc agaacaagca cctggaagtg cggcaccagc ggagcggggc tggggaccac
1020
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1140
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1200

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 1320
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 1440
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 1550

<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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Ser	Asp	Glu	Ser	Asp	Glu	Val	Ile	Leu	Lys	Asp	Leu	Glu	Val	Leu	Ala
			20						25				30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
			35						40				45		
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
			50						55				60		
Pro	Gly	Arg	Ala	Gly	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu	
65									70				75		80
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
									85				90		95
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
									100				105		110
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
									115				120		125
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
									130				135		140
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145									150				155		160
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
									165				170		175
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
									180				185		190
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
									195				200		205
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
									210				215		220
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225									230				235		240
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
									245				250		255
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
									260				265		270
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

275	280	285
Glu Leu Leu Gln Thr Glu Asp Ser Leu Lys Ala Ala Pro Lys Ser Gln		
290	295	300
Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu Gln His Phe		
305	310	315
Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln Arg Ser Gly		
325	330	335
Arg Gly Asp His Leu Asp Arg Arg Val Val Leu		
340	345	

<210> 4665
 <211> 1043
 <212> DNA
 <213> Homo sapiens

<400> 4665
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 agagtcttca tgtggacagt ctcagggaca ccatgtagag aattttggtc tcgattcaga
 120
 aaagagaaag agccagtggg tgttgagaca gtagaagaga aaaaggaacc taccctagt
 180
 tgtccacctt tacgaagccg agcatacaca ccacctgaag atctccagag tcgtttggaa
 240
 tcttacgtta aagaagtttt tggttcatct ctccctagta attggcaaga catctccctg
 300
 gaagatagtc gtctaaagt caatcttctg gctcatttag ctgatgactt gggtcattga
 360
 gtccctaact ccagactcca ccagatgtgc aggggttagag atgttcttga tttctataat
 420
 gtccctattc aagatagatc taaatttgat gaactcagt ccagtaattc gcccccaat
 480
 ttgaaaatca cttggagtta ctaagcaatt cggaagagaa acacattgaa atcactgtct
 540
 ttccttgagc aagggggctg ctcatagat cttttgatac tttaccatgt gaaatactac
 600
 cagaactgtt ctctaaaccc actttttctg tagaggaatg tatcatcttt ttttttctca
 660
 tattacaaat ggacaaataa cggactttct attttcatat ttgctgaaac cattttttaa
 720
 atgaaattag gtcattatct atgaaaagt ttgagagggc actgtcaact tgggtttaag
 780
 acaggaggac attgcaagt caccctttc ataagcataa agtagttgca agaaagtatt
 840
 ttcacctgt taggattcat atctaagata gagttatgca ttgcacatac acaataaac
 900
 ttttattaga tagataccta taaaagaaac ataaaagtat gttgtgtatt actgacagtt
 960
 ctagattaat ttcttttaga attaaagtag atttgttaaa aaaaaaaaaa aaaaaaaaaa
 1020
 aaaaaaaaaa aaaaaaaaaa aaa
 1043

<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
 Xaa Arg His Glu Gly Gly Ser His Arg Lys Ala Ala Arg Ser Val Ser
 1 5 10 15
 Gly Ile Thr Arg Arg Val Phe Met Trp Thr Val Ser Gly Thr Pro Cys
 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 120
 cctctgctgg aggggaaagc ccgctcctgt ttgctatga ccgagcccca ggttgccctct
 180
 tcagatgcca ccaacattga ggcttcctc agagaggagg acagcttcta tgcataaac
 240
 ggtcacaaat ggtggatcac aggcacccct gatccctcgt gccaaactctg tgtgtttatg
 300
 ggaaaaacag acccacatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg
 360
 gataccccag ggataaaaaat catccggcct ctgacggtgt atggactgga agatgcacca
 420
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 540
 tgcattgaggc tgatcgggtt ctacagagagg gccctggcac tcatgaaggc ccgctgaggt
 600

gctttccccc gcaccagca ctgactcaga accaccacct tctgctttgc tgcggactt
 660
 caattcctac ctgttttctg agtgagctcc tagcaggtga agcaaggtga tgccttgcc
 720
 aagaagttgc attcctgtct gctttgcac tgctactttg ctgcagtttg gattcagagc
 780
 agaatggacc ccactctgtc gaggtgacct gaagggaaac gccaggctct gtagcagcag
 840
 agggcaaggt tccaaggtgt aaaggtcatg ctgctagcac attattaaaa atcagtcctgg
 900
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 1020
 aaaaaaaaaa a
 1031

<210> 4668
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4668
 Xaa Ala Met Gly Thr Ser Leu Tyr Ala Pro Glu Val Cys Asn Cys Ser
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 Ala Pro Asp Thr Gly Asn Met Glu Leu Val Arg Tyr Gly Thr Glu
 20 25 30
 Ala Gln Lys Ala Arg Trp Leu Ile Pro Leu Leu Glu Gly Lys Ala Arg
 35 40 45
 Ser Cys Phe Ala Met Thr Glu Pro Gln Val Ala Ser Ser Asp Ala Thr
 50 55 60
 Asn Ile Glu Ala Ser Ile Arg Glu Glu Asp Ser Phe Tyr Val Ile Asn
 65 70 75 80
 Gly His Lys Trp Trp Ile Thr Gly Ile Leu Asp Pro Arg Cys Gln Leu
 85 90 95
 Cys Val Phe Met Gly Lys Thr Asp Pro His Ala Pro Arg His Arg Gln
 100 105 110
 Gln Ser Val Leu Leu Val Pro Met Asp Thr Pro Gly Ile Lys Ile Ile
 115 120 125
 Arg Pro Leu Thr Val Tyr Gly Leu Glu Asp Ala Pro Gly Gly His Gly
 130 135 140
 Glu Val Arg Phe Glu His Val Arg Val Pro Lys Glu Asn Met Val Leu
 145 150 155 160
 Gly Pro Gly Arg Gly Phe Glu Ile Ala Gln Gly Arg Leu Gly Pro Gly
 165 170 175
 Arg Ile His His Cys Met Arg Leu Ile Gly Phe Ser Glu Arg Ala Leu
 180 185 190
 Ala Leu Met Lys Ala Arg Val Ser Ala Phe Pro Arg Thr Gln His
 195 200 205

<210> 4669
 <211> 683
 <212> DNA
 <213> Homo sapiens

<400> 4669
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 120
 gacatgaaca taaaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag
 180
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
 tcttattaca gaggtcttaa agtacgaaag gatattcaaa atatgcaccg ggctgccaca
 360
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact
 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgtta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcataaaa
 540
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc
 600
 tgcactctgc tggtacagaa gtaaaactca gtatgaagct gttcaaagtg aaggtgttat
 660
 gattcaagag tggataaaag ctt
 683

<210> 4670
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4670
 Xaa Ser Phe Ser Gly Leu Arg Gly Ile Ile Gln Glu Lys Tyr Arg Ala
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 Asn Lys Lys Lys Gln Lys Val Phe Gln His Asn Glu Leu Lys Lys Glu
 20 25 30
 Thr Cys Val Gln Ala Gly Phe Gln Asp Met Asn Ile Lys Lys Gln Ile
 35 40 45
 Gln Glu Gln His Gln Ala Ala Ile Ile Ile Gln Lys His Cys Lys Ala
 50 55 60
 Phe Lys Ile Arg Lys His Tyr Leu His Ile Arg Ala Thr Val Val Ser
 65 70 75 80
 Ile Gln Arg Arg Tyr Arg Lys Leu Thr Ala Val Arg Thr Gln Ala Val
 85 90 95
 Ile Cys Ile Gln Ser Tyr Tyr Arg Gly Phe Lys Val Arg Lys Asp Ile
 100 105 110
 Gln Asn Met His Arg Ala Ala Thr Leu Ile Gln Ser Phe Tyr Arg Met
 115 120 125
 His Arg Ala Lys Val Asp Tyr
 130 135

<210> 4671
 <211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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120
ggggctcggc aggggctacc cggctccgct tccgcccagt aatggagact gcagccacgt
180
taggccaggc tgctgcagtg gtttcagcat ctatccgcag ggatccacgg ggaagctggt
240
gtgcgccgga taaagatggc aaccgccgat gagattgtga aactcatgct cgaccacatg
300
acaaacacca ccaacgcgtc ccattgtgct gtgcagcccg gctcctcagt tgtgatgatg
360
gtcaacaacc tgggtggcct gtcattcctg gaactgggca tcatagccga cgctaccgtc
420
cgctccctgg agggccgcgg ggtgaagatt gccctgccc tgggtgggac ctcatgtca
480
gcactggaga tgctggcat ttctctcacc ctctgctgg tggatgagcc tctcctgaaa
540
ctgatatagtg ctgaaaccac tgcagcagcc tggcctcgaa gcggatggcg ctggtgctgg
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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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Ala Arg Leu Leu Gln Trp Phe Gln His Leu Ser Ala Gly Ile His Gly
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Glu Ala Gly Val Arg Arg Ile Lys Met Ala Thr Ala Asp Glu Ile Val
20           25           30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
35           40           45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
50           55           60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65           70           75           80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
85           90           95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
100          105          110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
115          120          125
Ala Trp Pro Arg Ser Gly Trp Arg Trp Cys Trp Asn Gly Cys Ala Ala
130          135          140
Leu Ser Trp Ala Trp Arg Asn Thr
145          150

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<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

<400> 4673
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120
aatctaagga tgaatgttca ccgtggcagt gacagtgaca gggtattgcy gcaggaggcc
180
agctgcttag tggatgatac tttagctgta gcccaagaaa aagaagcaaa cagcctggct
240
tcactctggtc ctcataatct tacttatcct ctagggtccca ggaatgaaga cctctcactt
300
gactatgcct ctacagccagc aaatcttcag ttccctcaca taatgccctt tgctgaagac
360
atcaaagggtt cttgcttcca aagtgggaat aaacggaacc atgaaccttt tattgctcca
420
gaaagatttg gaaacagtag tgtgggcttt ggcagtaatt cccattccca agcaccagag
480
aaagtgcgc ttcttgtaga tggcacacgt ttgttgtga atccacagat tttcactgct
540
catccggata ccatgctggg aaggatgttt ggaccaggaa gagagtacaa cttcactcgg
600
cccaatgaga agggagagta tgagattgct gaaggcatca gtgcaactgt atttcgcaca
660
gtgctggatt attacaaaac cggtatcatc aattgtcctg atggcatctc tatccagat
720
cttagagata cttgtgatta tctctgcatt aattttgact tcaacactat ccgatgtcaa
780
gatctgagtg ctttactcca tgaactgtct aatgacggtg ctcataagca gtttgatcac
840
tacctcgaag agctcatctt gcccatcatg gtgggctgtg ccaagaaagg agaacgagag
900
tgccacattg ttgtgctgac ggatgaggat tctgtggact gggatgaaga ccaccctcca
960
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1020
tatattgaga atagggatgt tgcaaaaaca gtgttaaagg aacggggcct aaaaaacatt
1080
cgcattggaa ttgaaggtta ccctacctgt aaagaaaaaa ttaagagaag gcctggcggc
1140
cgttctgaag tcatctataa ttatgtacaa cgtcccttca tccagatgtc atgggaaaag
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<210> 4674

<211> 402
 <212> PRT
 <213> Homo sapiens

<400> 4674

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 20           25           30
Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
 35           40           45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
 50           55           60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
 65           70           75           80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
 85           90           95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
355          360          365
Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
370          375          380
Val Leu Glu Asp Gln Glu Ile Leu Met His His Pro Pro Gln Val Asp

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385
Glu Leu

390

395

400

<210> 4675
<211> 2868
<212> DNA
<213> Homo sapiens

<400> 4675
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120
cgctcagcga ggaccgtag cagcaacagc ttctgctcag atgacacagg ctgtcctagc
180
agccagtcag tgtctcctgt gaagacaccc tcagatgctg gaaacagccc cattggcttt
240
tgccctggaa gtgatgaagg cttcaccaga aagaaatgca cgattggaat ggttggtgaa
300
ggaagcattc agtcctctcg atataagaag gaatcaaagt caggccttgt gaaaccaggt
360
agtgaagctg attttagctc ctgcagcagc acaggcagca ttccgctcc tgaggtccat
420
atgtcgactg cgggaagcaa gcggtcttct tcttcacgca atcgaggctc tcatgggagg
480
agtaatggag ctctgctaca caagcctggc agcagctcat catccccgag ggaaaaggac
540
cttctgtcca tgctgtgcag gaatcagctg agccctgtca atatccatcc cagttatgca
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660
atgaggcgtt ctggaaggta catgtcttgc ggtgaaaatc atggtgtcag acccccaaac
720
ccagagcagt atttgactcc actgcagcag aaagaggtga cagtgcagaca cctcaaaacc
780
aagctgaagg aatctgagcg ccgactccat gaaagggaaa gtgaaatcgt ggagcttaag
840
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<400> 4676

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<212> DNA

<213> Homo sapiens

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<210> 4684

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4684

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Pro	His	Ala	Arg	Ser	Arg	Val	Arg	Pro	Ala	Pro	Lys	Thr	Ile	Pro	Gln
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Gln	Thr	His	Gly	Thr	Ala	Arg	Ile	Gly	Thr	His	Asn	Gly	Thr	Phe	His
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Cys	Asp	Glu	Ala	Leu	Ala	Cys	Ala	Leu	Leu	Arg	Leu	Leu	Pro	Glu	Tyr
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Cys	Asp	Ile	Val	Val	Asp	Val	Gly	Gly	Glu	Tyr	Asp	Pro	Arg	Arg	His
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Arg	Tyr	Asp	His	His	Gln	Arg	Ser	Phe	Thr	Glu	Thr	Met	Ser	Ser	Leu
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Ser	Pro	Gly	Lys	Pro	Trp	Gln	Thr	Lys	Leu	Ser	Ser	Ala	Gly	Leu	Ile
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Phe	Val	Glu	Glu	Val	Asp	Ala	Val	Asp	Asn	Gly	Ile	Ser	Gln	Trp	Ala
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	275					280						285			
Glu	Ser	Gly	Leu	Ser	Pro	Pro	Val	Ala	Ile	Phe	Phe	Val	Ile	Tyr	Thr
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 Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
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<210> 4685
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 <213> Homo sapiens

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<210> 4686
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

50 55 60
 Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
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 Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
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 Asp Arg Glu Lys Gly Gln Met Pro His Thr
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<210> 4687
 <211> 309
 <212> DNA
 <213> Homo sapiens

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<210> 4688
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 <212> PRT
 <213> Homo sapiens

<400> 4688
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 Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
 35 40 45
 Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
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 Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
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<210> 4689
 <211> 898
 <212> DNA
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<210> 4690
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<400> 4690
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 85 90 95
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 100 105 110
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 Val Thr Asp Gly Gly Ser Ser Asp Pro Val Gly Pro Pro Met Gln Glu

145 150 155 160
 Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly
 165 170 175
 Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
 180 185 190
 Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
 195 200 205
 Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
 210 215 220
 Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
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 Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
 245 250 255
 Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
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<210> 4691

<211> 2375

<212> DNA

<213> Homo sapiens

<400> 4691

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<210> 4692

<211> 383
 <212> PRT
 <213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
 35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
 50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
 65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
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Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
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Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
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Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
290          295          300
Ser Ser Cys Tyr Gly Asp Cys Arg Ser Glu Asp Asp Glu Ala Thr Glu
305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
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Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
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Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
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 <212> PRT
 <213> Homo sapiens

<400> 4694
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 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
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 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
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<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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<210> 4696
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4696
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 20 25 30
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 35 40 45
 Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala Ala Trp Pro Asn
 50 55 60
 Val Ala Ala Val Ser Ile Thr Gly Arg Lys Arg Ser Arg Val Ala Pro
 65 70 75 80
 Ala Glu Pro Gln Glu Ala Pro Asp Ser Thr Ala Ala Xaa Glu Ala Gln
 85 90 95
 Pro Arg Ser Xaa Met Ala Leu Val Leu Glu Arg Val Cys Ser Thr Leu
 100 105 110
 Leu Gly Leu Glu Glu His Leu Asn Ala Leu Asp Arg Ala Ala Gly Asp
 115 120 125
 Gly Asp Cys Gly Thr Thr His Ser Arg Ala Ala Arg Ala Ile Gln Glu
 130 135 140
 Trp Leu Lys Glu Gly Pro Pro Pro Ala Ser Pro Ala Gln Leu Leu Ser

145 150 155 160
 Lys Leu Ser Val Leu Leu Leu Glu Lys Met Gly Gly Ser Ser Gly Ala
 165 170 175
 Leu Tyr Gly Leu Phe Leu Thr Ala Ala Ala Gln Pro Leu Lys Ala Lys
 180 185 190
 Thr Ser Leu Pro Ala Trp Ser Ala Ala Met Asp Ala Gly Leu Glu Ala
 195 200 205
 Met Gln Lys Tyr Gly Lys Ala Ala Pro Gly Asp Arg Thr Met Leu Asp
 210 215 220
 Ser Leu Trp Ala Ala Glu Gln Glu Leu Gln Ala Trp Lys Ser Pro Gly
 225 230 235 240
 Ala Asp Leu Leu Gln Val Leu Thr Lys Ala Val Lys Ser Ala Glu Ala
 245 250 255
 Ala Ala Glu Ala Thr Lys Asn Met Glu Ala Gly Ala Gly Arg Ala Ser
 260 265 270
 Tyr Ile Ser Ser Ala Arg Leu Glu Gln Pro Asp Pro Gly Ala Val Ala
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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 180
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 540
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 780
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 840

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<210> 4698
 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4698
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 35 40 45
 Pro Ser Cys Leu Pro Gly Ile Ser Ile Asn Ser Glu Gln Leu Thr Arg
 50 55 60
 Ala Gln Cys Val Thr Val Lys Glu Lys Leu Leu Glu Gln Ala Glu Ser
 65 70 75 80
 Leu Leu Ser Glu Pro Met Val His Glu Leu Val Leu Trp Ile Gln Gln
 85 90 95
 Asn Leu Arg His Ile Leu Ser Gln Pro Glu Thr Gly Ser Gly Ser Glu
 100 105 110
 Lys Cys Thr Phe Ser Thr Ser Thr Thr Met Asp Asp Gly Leu Trp Ile
 115 120 125
 Thr Leu Leu His Leu Asp His Met Arg Ala Lys Thr Lys Tyr Val Lys
 130 135 140
 Ile Val Glu Lys Trp Ala Ser Asp Leu Arg Leu Thr Gly Arg Leu Met
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 Leu Lys Val Pro Lys Ser
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<210> 4699
 <211> 1441
 <212> DNA
 <213> Homo sapiens

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 420
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 720
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 780
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 1260
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 1320
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 1441

<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser	Thr	Arg	Gly	Gln	Ser	Lys	Thr	Gly	Trp	Lys	Leu	Pro	Val	Thr	Leu
			20					25					30		
Ile	Cys	Cys	Pro	Arg	His	Pro	Leu	Met	Arg	Leu	Lys	Leu	Gly	Pro	Ser


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1           5           10           15
Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
                20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
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Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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                20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
                35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
                50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
                85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100

105

110

<210> 4705

<211> 569

<212> DNA

<213> Homo sapiens

<400> 4705

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 180
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 acggaggtag tcatgatcta tgacgccgag aagcagaggc cccgaggtaa gggcagatct
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 420
 actaaaacgt gggctcctca tgtgcacccc attcagcctg tctgtgcttc ccgaggtcag
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<210> 4706

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4706

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Lys	Ser	Asn	Lys	Ile	Phe	Val	Gly	Gly	Ile	Pro	His	Asn	Cys	Gly	Glu
			20				25						30		
Thr	Glu	Leu	Arg	Glu	Tyr	Phe	Lys	Lys	Phe	Gly	Val	Val	Thr	Glu	Val
		35					40					45			
Val	Met	Ile	Tyr	Asp	Ala	Glu	Lys	Gln	Arg	Pro	Arg	Gly	Lys	Gly	Arg
	50					55					60				
Ser	Ser	Leu	Thr	Ser	Ala	Phe	Ser	Leu	Leu	Leu	Pro	Gln	Met	Ala	Asn
	65				70				75					80	
Tyr	Leu	Thr	Arg	Gln	Ala	His	Thr	Gly	Gly	Gly	Cys	Ser	Lys	Gln	Pro
			85					90						95	
Gln	Glu	Gly	Thr	Ile	Trp	Arg	Gln	Met	Thr	Lys	Thr	Trp	Ala	Pro	His
	100							105					110		
Val	His	Pro	Ile	Gln	Pro	Val	Cys	Ala	Ser	Arg	Gly	Gln	Thr	Ser	His
	115						120					125			
Ile	Val	Phe	Trp	Leu	Val	Leu	Leu	Lys	Phe	Leu	Arg	Leu	Val	Met	Ser
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Leu	Gly	Leu	Ala	Ser	Val	Phe	His	Cys	Pro						

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150

<210> 4707
 <211> 748
 <212> DNA
 <213> Homo sapiens

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 420
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 480
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<210> 4708
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4708
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 His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
 35 40 45
 Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
 50 55 60
 Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
 65 70 75 80
 Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
 85 90 95
 Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

100 105 110
 Ser Gly Ser Glu Lys Lys Lys Met Ser Asp Asp Pro Val Glu Asp Asp
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 <210> 4709
 <211> 1351
 <212> DNA
 <213> Homo sapiens
 <400> 4709
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<210> 4710

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4710

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          20           25           30
Tyr Gly Glu Val Val Asp Cys Val Ile Met Lys Asp Lys Thr Thr Asn
          35           40           45
Gln Ser Arg Gly Phe Gly Phe Val Lys Phe Lys Asp Pro Asn Cys Val
          50           55           60
Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
65          70           75           80
Asp Pro Lys Pro Cys Thr Pro Arg Gly Met Gln Pro Glu Arg Thr Arg
          85           90           95
Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
          100          105          110
Asn Lys Ile Phe Val Gly Gly Ile Pro His Asn Cys Gly Glu Thr Glu
          115          120          125
Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val Val Met
          130          135          140
Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Phe Gly Phe Ile Thr
145          150          155          160
Phe Glu Asp Glu Gln Ser Val Asp Gln Ala Val Asn Met His Phe His
          165          170          175
Asp Ile Met Gly Lys Lys Val Glu Val Lys Arg Ala Glu Pro Arg Asp
          180          185          190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
          195          200          205
Arg Val Val Pro Asn Ala Ala Asn Gly Trp Ala Gly Gln Pro Pro Pro
          210          215          220
Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225          230          235          240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
          245          250          255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
          260          265          270
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Gln Phe Ser Phe Gly Tyr Gly Pro Pro Pro Pro Pro Gly Ser Arg
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<210> 4711

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 4711

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720
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780
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1140
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 2061

<210> 4712
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 4712
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 Val Gly Ser Gly Ser Arg Glu Leu Ser Leu Arg Pro Ser Arg Ser Gly
 35 40 45
 Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu Glu Glu Ala Gln
 50 55 60
 Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala Asn Gly Pro Asn
 65 70 75 80
 Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp Phe Glu Ser Glu
 85 90 95
 Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp Tyr Asp Tyr Pro
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 Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe Asp Gln Leu Ala
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 <213> Homo sapiens

<400> 4713

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<212> PRT

<213> Homo sapiens

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Gln Ile Leu Asn Val Ser Lys Leu Ser Pro Glu Glu Val Gln Lys Asn
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<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
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 Thr Phe Pro Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu Gln His
 65 70 75 80
 Pro Gln Thr Asp Arg Leu Thr Cys Pro Lys Gly Leu Pro Trp Ala Pro
 85 90 95
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 100 105 110
 Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val Val Gly
 115 120 125
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 Tyr Thr Ser Ile Ala Glu Val Gln Ala Gln Met Lys Glu Glu Tyr Leu
 145 150 155 160
 Arg Ser Pro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val Pro Ala
 165 170 175
 Glu Thr Leu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr Met Ile
 180 185 190
 Ala Leu Leu Lys Ile Leu Leu Ala Ala Ala Pro Thr Ser Lys Ala Lys
 195 200 205
 Thr Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu Met Pro
 210 215 220
 Thr Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn Arg His
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Lys His Phe

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 <213> Homo sapiens

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 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
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 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
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 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
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 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

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Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr			
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<210> 4721

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4721

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<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
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<211> 1213
<212> DNA
<213> Homo sapiens

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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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 20 25 30
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 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
 Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
 100 105 110
 Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727
<211> 2031
<212> DNA
<213> Homo sapiens

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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			20					25					30		
Gln	Trp	Asp	Ser	Asp	Glu	Pro	Ile	Pro	Ala	Lys	Glu	Leu	Glu	Arg	Gly
		35				40						45			
Val	Ala	Gly	Ala	His	Gly	Leu	Cys	Leu	Leu	Ser	Asp	His	Val	Asp	
	50					55				60					
Lys	Arg	Ile	Leu	Asp	Ala	Ala	Gly	Ala	Asn	Leu	Lys	Val	Ile	Ser	Thr
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Met	Ser	Val	Gly	Ile	Asp	His	Leu	Ala	Leu	Asp	Glu	Ile	Lys	Lys	Arg
			85					90					95		
Gly	Ile	Arg	Val	Gly	Tyr	Thr	Pro	Asp	Val	Leu	Thr	Asp	Thr	Thr	Ala
			100					105					110		
Glu	Leu	Ala	Val	Ser	Leu	Leu	Leu	Thr	Thr	Cys	Arg	Arg	Leu	Pro	Glu
		115					120					125			
Ala	Ile	Glu	Glu	Val	Lys	Asn	Gly	Gly	Trp	Thr	Ser	Trp	Lys	Pro	Leu
	130					135					140				
Trp	Leu	Cys	Gly	Tyr	Gly	Leu	Thr	Gln	Ser	Thr	Val	Gly	Ile	Ile	Gly
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Leu	Gly	Arg	Ile	Gly	Gln	Ala	Ile	Ala	Arg	Arg	Leu	Lys	Pro	Phe	Gly
			165					170					175		
Val	Gln	Arg	Phe	Leu	Tyr	Thr	Gly	Arg	Gln	Pro	Arg	Pro	Glu	Glu	Ala
		180						185					190		
Ala	Glu	Phe	Gln	Ala	Glu	Phe	Val	Ser	Thr	Pro	Glu	Leu	Ala	Ala	Gln
	195					200					205				
Ser	Asp	Phe	Ile	Val	Val	Ala	Cys	Ser	Leu	Thr	Pro	Ala	Thr	Glu	Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		240
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Ala Gly Leu Asp Val Thr Ser		255
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		270
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		285
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		300
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		320
	325	

<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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 180
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<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730

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      20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
      35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
      50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
      85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
      100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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780

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<211> 129
<212> PRT
<213> Homo sapiens

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Ala Arg Met Ala Gly His Val Ser Val Leu Val Ser His Phe Pro Pro
35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
Val Ser Ile His Pro Leu Val Val Ile Glu Ala Ala Leu Pro Val Leu
100 105 110
Gly Glu Asp Ile Trp Ala Thr Arg Ala Pro Leu Ala Pro Ser Arg Arg
115 120 125
Lys

<210> 4733
<211> 543
<212> DNA
<213> Homo sapiens

<400> 4733
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<210> 4734
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 <212> PRT
 <213> Homo sapiens

<400> 4734
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 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
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 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
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<210> 4735
 <211> 300
 <212> DNA
 <213> Homo sapiens

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<210> 4736
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 4736

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Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn Gly Pro
      35           40           45
Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
      50           55           60
Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
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Tyr Ser Tyr Tyr Tyr Pro Met Pro Pro Gly Pro Gly Met
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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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1020

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<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738
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 35 40 45
 Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50 55 60
 Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
 65 70 75 80
 Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
 85 90 95
 Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
 100 105 110
 Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
 115 120 125
 Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
 130 135 140
 Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
 145 150 155 160
 Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
 165 170 175
 Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
 180 185 190
 Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
 195 200 205
 Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
 210 215 220
 Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
 225 230 235 240
 Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
 245 250 255
 Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
 260 265 270
 Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
 275 280 285
 Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
 290 295 300
 Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
 305 310 315 320
 Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
 325 330 335
 Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
 340 345 350
 Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
 355 360 365
 Glu Val Glu Arg Met Gly Ala Lys Gly Leu Gln Leu Glu Leu Ser Arg

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      405              410              415
Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420              425              430
Ser Leu Asn Asn Arg Leu Ser Tyr Ala Val Arg Lys Val His Thr Ile
      435              440              445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450              455              460
Ser Cys Pro Leu Pro Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465              470              475              480
Gln Leu Arg Glu Glu Arg Asn Arg Leu Asp Ala Glu Leu Gln Leu Ser
      485              490              495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500              505              510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515              520              525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530              535              540
Val Ala Arg Gln Gly Gln Gln Glu Ser Thr Glu Glu Ala Ala Ser Leu
545              550              555              560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565              570              575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580              585              590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595              600              605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610              615              620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625              630              635              640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645              650              655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660              665              670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675              680              685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690              695              700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705              710              715              720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
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Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
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Gln Met Ser Ser
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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

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 240
 gttcattact ataccatggc tgaggtcttc ctgggcacca ggcctgggc tcagcacttg
 300
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 420
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<210> 4740
 <211> 119
 <212> PRT
 <213> Homo sapiens

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 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala
 35 40 45
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu
 50 55 60
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu
 65 70 75 80
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu
 85 90 95
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser
 100 105 110
 Gly Arg Val Gln Gly Ala Asp
 115

<210> 4741
 <211> 411
 <212> DNA
 <213> Homo sapiens

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 ttccgaaaaa aagaggggaa ttttttaaaa aaccgaaaag gggggaaggg ggggggtata
 180
 aaagataaaa tttggttttt tgggggggaa aatttggaca cccaccctc gggttttttt
 240
 tccccacccc aaaaaatttt aaaagggggc cctaaaaaaa attttttctt taatttccaa
 300
 ataaaaaaa aatgggggttc caaatcatt gaaaaatagg ggggactcca aaaccttgaa
 360
 ttttcccaag ggggaccact aaaatttacc ctttttttgg ggttttgggg g
 411

<210> 4742
 <211> 109
 <212> PRT
 <213> Homo sapiens

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 Phe Phe Leu Gly Pro Pro Phe Lys Ile Phe Trp Gly Gly Glu Lys Lys
 20 25 30
 Pro Glu Gly Gly Val Ser Lys Phe Ser Pro Pro Lys Asn Gln Ile Leu
 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
 65 70 75 80
 Lys Thr Pro Phe Phe Leu Arg Lys Lys Arg Glu Lys Lys Lys Lys
 85 90 95
 Lys Glu Arg Lys Thr Pro Val Asp Leu Arg Glu Val Asn
 100 105

<210> 4743
 <211> 473
 <212> DNA
 <213> Homo sapiens

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 gagtgattga gtcccggtat ctgcagtatg aaaagaagac aaccctaaaag gtcctgcag
 180
 gagatgggtc acagaccga ggaagatgt ctgaaggtgg aaggaaatcc agcctgctcc
 240
 agaaaagcaa agcagatagc agtgggggtcg gaaaggtga cctgcagtcc acgttgctgg
 300

aagggcatgg cacagctcca cctgacctgg atctctctgc tattaatgac aaaagcatcg
 360
 tcaaaaagac gccacagtta gcaaaaacaa tatcaaagaa acctgagtca acatcatttt
 420
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 473

<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 4744
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 20 25 30
 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
 115 120 125
 Ser Thr Ser Phe Ser Ala Pro Arg Lys Lys Ser Pro Asp Leu Ser Glu
 130 135 140
 Ala Asn Gly Met Met Glu
 145 150

<210> 4745
 <211> 666
 <212> DNA
 <213> Homo sapiens

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 180
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 240
 aaaaatgagg gtccagatta tagactctac aagagtgaac cagagttaac aacagtggca
 300
 gaagttgatg aatctaattg agaagaaaaa tcagaacctg tttcagagat agaaaacttca
 360
 gttgttaaag gttccactt tctgttgga gtagtcctc caagagcaaa atcaccaaca
 420

cccgaatctt cgacaatagc ttcctatgta accttgagga aaactaagaa gatgatggat
 480
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 540
 ccaaggatga ctgtggaaga gcaaatggaa agaataagaa gatatcaaca agcgtgcctg
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 ccttaa
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<210> 4746
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 4746
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 20 25 30
 Ser Ala Gly Ile Gln Arg Ala Gln Ile Gln Lys Glu Leu Trp Arg Ile
 35 40 45
 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
 50 55 60
 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
 65 70 75 80
 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
 100 105 110
 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
 115 120 125
 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
 145 150 155 160
 Leu Arg Thr Glu Arg Pro Arg Ser Ala Val Glu Gln Leu Cys Leu Ala
 165 170 175
 Glu Ser Thr Arg Pro Arg Met Thr Val Glu Glu Gln Met Glu Arg Ile
 180 185 190
 Arg Arg Tyr Gln Gln Ala Cys Leu Arg Glu Lys Lys Lys Gly Leu Asn
 195 200 205
 Val Ile Gly Ala Ser Asp Gln Ser Pro Leu Gln Ser Pro
 210 215 220

<210> 4747
 <211> 1091
 <212> DNA
 <213> Homo sapiens

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<210> 4748

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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 20 25 30
 Thr Gly Ser Ser Pro Arg Gly Pro Gly Cys Ser Leu Arg His Phe Ala
 35 40 45
 Cys Glu Gln Asn Leu Leu Ser Arg Pro Asp Gly Ser Ala Ser Phe Leu
 50 55 60
 Gln Gly Asp Thr Ser Val Leu Ala Gly Val Tyr Gly Pro Ala Glu Val
 65 70 75 80
 Lys Val Ser Lys Glu Ile Phe Asn Lys Ala Thr Leu Glu Val Ile Leu

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<212> DNA
<213> Homo sapiens
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660

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2196

<210> 4750

<211> 276
 <212> PRT
 <213> Homo sapiens

<400> 4750
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 35 40 45
 Val Leu Ala Val Leu Leu Thr Leu Val Phe Trp Lys Leu Ile Arg Ser
 50 55 60
 Arg Arg Ser Ser Gln Arg Ala Val Leu Leu Val Gly Leu Cys Asp Ser
 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
 85 90 95
 Thr Gln Thr Ser Ile Thr Asp Ser Cys Ala Val Tyr Arg Val Asn Asn
 100 105 110
 Asn Arg Gly Asn Ser Leu Thr Leu Ile Asp Leu Pro Gly His Glu Ser
 115 120 125
 Leu Arg Leu Gln Phe Leu Glu Arg Phe Lys Ser Ser Ala Arg Ala Ile
 130 135 140
 Val Phe Val Val Asp Ser Ala Ala Phe Gln Arg Glu Val Lys Asp Val
 145 150 155 160
 Ala Glu Phe Leu Tyr Gln Val Leu Ile Asp Ser Met Gly Leu Lys Asn
 165 170 175
 Thr Pro Ser Phe Leu Ile Ala Cys Asn Lys Gln Asp Ile Ala Met Ala
 180 185 190
 Lys Ser Ala Lys Leu Ile Gln Gln Gln Leu Glu Lys Glu Leu Asn Thr
 195 200 205
 Leu Arg Val Thr Arg Ser Ala Ala Pro Ser Thr Leu Asp Ser Ser Ser
 210 215 220
 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
 Gln Leu Pro Leu Lys Val Glu Phe Leu Glu Cys Ser Ala Lys Gly Gly
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

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<211> 335

<212> PRT

<213> Homo sapiens

<400> 4752

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<211> 5298

<212> DNA

<213> Homo sapiens

<400> 4753

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 4756

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Glu	Gln	Arg	Arg	Pro	Ser	Thr	Ser	Ser	Ala	Ser	Gly	Gln	Trp	Ser	Pro
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Ile	Met	Arg	Leu	Gln	Val	Leu	Val	Pro	Gln	Val	Glu	Lys	Ile	Cys	
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Ile	Asp	Lys	Gly	Leu	Thr	Asp	Glu	Ser	Glu	Ile	Leu	Arg	Phe	Leu	Gln
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Met	Trp	Gly	Val	Ile	Tyr	Leu	Arg	Asn	Val	Asp	Pro	Pro	Val	Trp	Tyr
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<211> 272

<212> DNA

<213> Homo sapiens

<400> 4757

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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
		35				40				45					
Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
	50				55					60					
Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4759

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<210> 4760

<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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			20					25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
		35					40					45			
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<210> 4761

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<212> DNA

<213> Homo sapiens

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<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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 Arg Ala Ser Gly Tyr Arg Lys Arg Gly Pro Lys Pro Lys Arg Leu Leu
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 130 135 140
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 Pro Pro Trp Thr Pro Ala Leu Pro Ser Ser Glu Val Thr Val Thr Asp
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<212> PRT

<213> Homo sapiens

<400> 4764

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<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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<210> 4768
 <211> 460
 <212> PRT
 <213> Homo sapiens

<400> 4768
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 Asp Phe Ser Glu Ala Asp Leu Val Asp Val Ser Ala Tyr Ser Gly Leu
 35 40 45
 Gly Glu Asp Ser Ala Gly Ser Ala Leu Glu Glu Asp Asp Glu Asp Asp
 50 55 60
 Glu Gly Asp Gly Glu Pro Tyr Glu Pro Glu Ser Gly Cys Val Glu
 65 70 75 80
 Ile Pro Gly Leu Ser Glu Glu Glu Asp Pro Ala Pro Ser Arg Lys Ile
 85 90 95
 His Phe Ser Thr Ala Pro Ile Gln Val Phe Ser Thr Tyr Ser Asn Glu
 100 105 110
 Asp Tyr Asp Arg Arg Asn Glu Asp Val Asp Pro Met Ala Ala Ser Ala
 115 120 125
 Glu Tyr Glu Leu Glu Lys Arg Val Glu Arg Leu Glu Leu Phe Pro Val
 130 135 140
 Glu Leu Glu Lys Asp Ser Glu Gly Leu Gly Ile Ser Ile Ile Gly Met
 145 150 155 160
 Gly Ala Gly Ala Asp Met Gly Leu Glu Lys Leu Gly Ile Phe Val Lys
 165 170 175
 Thr Val Thr Glu Gly Gly Ala Ala His Arg Asp Gly Arg Ile Gln Val
 180 185 190
 Asn Asp Leu Leu Val Glu Val Asp Gly Thr Ser Leu Val Gly Val Thr
 195 200 205
 Gln Ser Phe Ala Ala Ser Val Leu Arg Asn Thr Lys Gly Arg Val Arg
 210 215 220
 Phe Met Ile Gly Arg Glu Arg Pro Gly Glu Gln Ser Glu Val Ala Gln
 225 230 235 240
 Leu Ile Gln Gln Thr Leu Glu Gln Glu Arg Trp Gln Arg Glu Met Met
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 Glu Gln Arg Tyr Ala Gln Tyr Gly Glu Asp Asp Glu Glu Thr Gly Glu
 260 265 270
 Tyr Ala Thr Asp Glu Asp Glu Glu Leu Ser Pro Thr Phe Pro Gly Gly

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      290              295              300
Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu
      305              310              315              320
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys
      325              330              335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu
      340              345              350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu
      355              360              365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val
      370              375              380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg
      385              390              395              400
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu
      405              410              415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu
      420              425              430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile
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Ser Glu Leu Glu Gly Asn Leu Gln Thr Leu Arg Asn
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<210> 4769

<211> 1533

<212> DNA

<213> Homo sapiens

<400> 4769

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720

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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			20					25					30		
Leu	Ser	Val	Leu	Thr	Glu	Cys	Ala	Arg	Met	His	Arg	Pro	Ala	Arg	Lys
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Phe	Leu	Lys	Ala	Gln	Val	Leu	Pro	Pro	Leu	Arg	Asp	Val	Arg	Thr	Arg
	50					55					60				
Pro	Glu	Val	Gly	Asp	Leu	Leu	Arg	Asn	Lys	Leu	Val	Arg	Leu	Met	Thr
65					70					75				80	
His	Leu	Asp	Thr	Asp	Val	Lys	Arg	Val	Ala	Ala	Glu	Phe	Leu	Phe	Val
			85						90					95	
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			100					105					110		
Asn	Ala	Ala	Gly	Leu	Leu	Ala	Ala	Arg	Gly	Leu	Met	Ala	Gly	Gly	Arg
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			165						170					175	
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			180						185					190	
Ala	Pro	Phe	Pro	Asn	Arg	Asn	Arg	Val	Ile	Gln	Pro	Met	Gly	Met	Ser
			195					200					205		
Pro	Arg	Gly	His	Leu	Thr	Ser	Leu	Gln	Asp	Ala	Met	Cys	Glu	Thr	Met
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<210> 4771

<211> 2653

<212> DNA

<213> Homo sapiens

<400> 4771

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 <211> 182
 <212> PRT
 <213> Homo sapiens

<400> 4772
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 20 25 30
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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
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<210> 4773
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 4773
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<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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Ala Thr Glu Gly Asp Lys Ile Pro Lys Cys Cys Arg Pro Gln Pro Arg
      20              25              30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35              40              45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50              55              60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
65              70              75              80
Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
      85              90

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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Arg Gly Glu Met Lys Arg Leu Ala Ser Ser Ser Pro Thr Asn Ser Leu
      20              25              30
Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35              40              45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Leu Thr
      50              55              60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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3954

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<210> 4778

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4778

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			20					25					30		
Arg	Ala	Glu	Asn	Arg	Glu	Leu	Gly	Lys	Arg	Val	Gln	Ala	Leu	Gln	Glu
		35					40					45			
Glu	Ser	Arg	Tyr	Leu	Arg	Ala	Val	Leu	Ala	Asn	Glu	Thr	Gly	Leu	Ala
		50				55					60				
Arg	Leu	Leu	Ser	Arg	Leu	Ser	Gly	Val	Gly	Leu	Arg	Leu	Thr	Thr	Ser
65					70					75				80	
Leu	Phe	Arg	Asp	Ser	Pro	Ala	Gly	Asp	His	Asp	Tyr	Ala	Leu	Pro	Val
			85						90					95	
Gly	Lys	Gln	Lys	Gln	Asp	Leu	Leu	Glu	Glu	Asp	Asp	Ser	Ala	Gly	Gly
			100					105					110		
Val	Cys	Leu	His	Val	Asp	Lys	Asp	Lys	Val	Ser	Val	Glu	Phe	Cys	Ser

	115		120		125
Ala	Cys	Ala	Arg	Lys	Ala
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				Lys	Ile
					Phe
					Phe
					Phe
					Arg
	130		135		140

<210> 4779
 <211> 4467
 <212> DNA
 <213> Homo sapiens

<400> 4779
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<213> Homo sapiens

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<213> Homo sapiens

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 Val Leu Val Asp Glu Glu Ser Gln Arg Glu Pro Gly Ala Ser Gly Ala
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Lys Asp Ser Val Glu Lys Leu Glu Leu Gly Cys Pro Phe Ser Pro His
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<213> Homo sapiens

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<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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<210> 4797

<211> 2848

<212> DNA

<213> Homo sapiens

<400> 4797

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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys	85	90	95	
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Arg	Arg	Ser	Arg	Ser	Arg	Ser	His	His	Arg	Glu	Gly	His	Gly	Ser	Ser	130	135	140	
Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu	145	150	155	160
Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Ser	Arg	Ser	Ile		165	170	175	
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Ser	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Lys	Gly	Asp	Arg	Arg	Asp	Arg	Asp	195	200	205	
Arg	Glu	Arg	Glu	Lys	Glu	Asn	Glu	Arg	Gly	Arg	Arg	Arg	Asp	Arg	Asp	210	215	220	
Tyr	Asp	Lys	Glu	Arg	Gly	Asn	Glu	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Ser	225	230	235	240
Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys	245	250	255	
Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg	260	265	270	
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Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325      330      335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340      345      350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355      360      365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
      370      375      380
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<210> 4799
 <211> 358
 <212> DNA
 <213> Homo sapiens

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<210> 4800
 <211> 119
 <212> PRT
 <213> Homo sapiens

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Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
      35      40      45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
      50      55      60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
      65      70      75      80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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<210> 4801

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<212> DNA

<213> Homo sapiens

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1260

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<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
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Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
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Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
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Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
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Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
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Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
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Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
	195					200						205			
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	210					215					220				
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		260					265						270		
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<210> 4803

<211> 564

<212> DNA

<213> Homo sapiens

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<210> 4804

<211> 53

<212> PRT

<213> Homo sapiens

<400> 4804

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Ile Met Ser Tyr Ala
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<210> 4805

<211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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<210> 4806
 <211> 438
 <212> PRT
 <213> Homo sapiens

<400> 4806
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 35 40 45
 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys
 50 55 60
 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly
 65 70 75 80
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Glu Ser Arg Phe Asp
 85 90 95
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn
 100 105 110
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu
 115 120 125
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala
 130 135 140
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn
 145 150 155 160
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val
 165 170 175
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro
 180 185 190
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly
 195 200 205
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu
 210 215 220
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp
 225 230 235 240
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro
 245 250 255
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys
 260 265 270
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe
 275 280 285
 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe
 290 295 300
 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro
 305 310 315 320
 Leu Gln Leu Ile Gln Pro Gln Phe Glu Thr Pro Leu Pro Thr Leu Gln
 325 330 335
 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

340 345 350
 Glu Leu Phe Asp Leu Asp Glu Thr Phe Ser Ser Glu Lys Ala Arg Leu
 355 360 365
 Ala Gln Ile Thr Asn Lys Cys Thr Glu Glu Asp Leu Glu Phe Tyr Val
 370 375 380
 Arg Lys Cys Gly Asp Ile Leu Gly Val Thr Ser Lys Leu Pro Lys Asp
 385 390 395 400
 Gln Gln Asp Ala Lys His Ile Leu Glu His Val Phe Phe Gln Val Val
 405 410 415
 Glu Phe Lys Lys Leu Asn Gln Glu His Asp Ile Asp Thr Ser Glu Thr
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 Ala Phe Gln Asn Asn Phe
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<210> 4807

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 4807

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 420
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 1177

<210> 4808
 <211> 313
 <212> PRT
 <213> Homo sapiens

<400> 4808
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 35 40 45
 Gln Glu Ala Gln Ser Leu Gly Gly Gln Cys Val Pro Val Val Cys Asp
 50 55 60
 Ser Ser Gln Glu Ser Glu Val Arg Ser Leu Phe Glu Gln Val Asp Arg
 65 70 75 80
 Glu Gln Gln Gly Arg Leu Asp Val Leu Val Asn Asn Ala Tyr Ala Gly
 85 90 95
 Val Gln Thr Ile Leu Asn Thr Arg Asn Lys Ala Phe Trp Glu Thr Pro
 100 105 110
 Ala Ser Met Trp Asp Asp Ile Asn Asn Val Gly Leu Arg Gly His Tyr
 115 120 125
 Phe Cys Ser Val Tyr Gly Ala Arg Leu Met Val Pro Ala Gly Gln Gly
 130 135 140
 Leu Ile Val Val Ile Ser Ser Pro Gly Ser Leu Gln Tyr Met Phe Asn
 145 150 155 160
 Val Pro Tyr Gly Val Gly Lys Ala Ala Cys Asp Lys Leu Ala Ala Asp
 165 170 175
 Cys Ala His Glu Leu Arg Arg His Gly Val Ser Cys Val Ser Leu Trp
 180 185 190
 Pro Gly Ile Val Gln Thr Glu Leu Lys Glu His Met Ala Lys Glu
 195 200 205
 Glu Val Leu Gln Asp Pro Val Leu Lys Gln Phe Lys Ser Ala Phe Ser
 210 215 220
 Ser Ala Glu Thr Thr Glu Leu Ser Gly Lys Cys Val Val Ala Leu Ala
 225 230 235 240
 Thr Asp Pro Asn Ile Leu Ser Leu Ser Gly Lys Val Leu Pro Ser Cys
 245 250 255
 Asp Leu Ala Arg Arg Tyr Gly Leu Arg Asp Val Asp Gly Arg Pro Val
 260 265 270
 Gln Asp Tyr Leu Ser Leu Ser Ser Val Leu Ser His Val Ser Gly Leu
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 Gly Trp Leu Ala Ser Tyr Leu Pro Ser Phe Leu Arg Val Pro Lys Trp
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<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

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 999

<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50	55	60
Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met		
65	70	75
Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln		80
	85	90
Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro		95
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Leu Pro Ser Gly Gln Pro Cys Pro		110
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<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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1140

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2760

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<210> 4812
<211> 306
<212> PRT
<213> Homo sapiens
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			20					25					30						
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu				
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Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln				
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Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly				
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Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly				
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Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu				
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Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser				
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			165						170						175				
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg				
			180					185					190						
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu				
	195						200					205							
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg				
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Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg				
225					230					235					240				
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly				

245 250 255
 Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
 260 265 270
 Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
 275 280 285
 Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
 290 295 300
 Gln Ser
 305

<210> 4813

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4813

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 aacacagatt tgaacattca cgaagaaact tccagggtga gccaaaccct cttcctcccc
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 400

<210> 4814

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4814

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 20 25 30
 Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
 35 40 45
 Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50 55 60
 Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
 65 70 75 80
 Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85 90 95
 Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
 100 105 110
 Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

<400> 4815
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<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 Glu Gly Glu Glu Lys Thr Leu Thr Gly Asp Val Lys Thr Ser Pro Pro
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 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
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 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
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 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
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 Gln Pro Ser Tyr Arg Ser Ala Leu Met
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<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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 960
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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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			20				25						30		
Ser	Gln	Ala	Gly	Leu	Asn	Gln	Lys	Leu	Asn	Phe	Ile	Val	Thr	Gly	Leu
		35				40					45				
Gln	Asp	Ile	Asp	Lys	Cys	Arg	Gln	Gln	Leu	His	Asp	Ile	Thr	Val	Pro
	50				55						60				
Leu	Glu	Val	Phe	Glu	Tyr	Ile	Asp	Gln	Gly	Arg	Asn	Pro	Gln	Leu	Tyr
65				70				75						80	
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<210> 4819
<211> 1655
<212> DNA
<213> Homo sapiens
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<400> 4819

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180					
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240					
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720					
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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
		35					40					45			
Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
		50				55					60				
Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
65					70					75				80	
Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85						90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105						110	
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val
		115					120					125			
Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
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Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
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Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
				165					170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180					185					190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
		195					200					205			
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
210						215					220				
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225					230					235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

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 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
 435 440 445
 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
 450 455 460
 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
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 Asp Ile Arg Lys Lys Ser Asn Pro Leu Gln Ile Gly Asn Pro Arg Ala
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 Glu Phe Leu Ala Ser Arg Ala
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<210> 4821

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4821

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 180
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 240

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 360
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 480
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<210> 4822

<211> 195

<212> PRT

<213> Homo sapiens

<400> 4822

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Arg	Ser	Gly	Arg	His	Phe	Gly	Thr	Ile	Leu	Asn	Tyr	Leu	Arg	Asp	Gly
			20					25					30		
Ser	Val	Pro	Leu	Pro	Glu	Ser	Thr	Arg	Glu	Leu	Gly	Glu	Leu	Leu	Gly
		35					40					45			
Glu	Ala	Arg	Tyr	Tyr	Leu	Val	Gln	Gly	Leu	Ile	Glu	Asp	Cys	Gln	Leu
	50					55				60					
Ala	Leu	Gln	Gln	Lys	Arg	Glu	Thr	Leu	Ser	Pro	Leu	Cys	Leu	Ile	Pro
65					70				75					80	
Met	Val	Thr	Ser	Pro	Arg	Glu	Glu	Gln	Gln	Leu	Leu	Ala	Ser	Thr	Ser
			85						90					95	
Lys	Pro	Val	Val	Lys	Leu	Leu	His	Asn	Arg	Ser	Asn	Asn	Lys	Tyr	Ser
		100						105						110	
Tyr	Thr	Ser	Thr	Ser	Asp	Asp	Asn	Leu	Leu	Lys	Asn	Ile	Glu	Leu	Phe
	115					120						125			
Asp	Lys	Leu	Ala	Leu	Arg	Phe	His	Gly	Arg	Leu	Leu	Phe	Leu	Lys	Asp
	130					135						140			
Val	Leu	Gly	Asp	Glu	Ile	Cys	Cys	Trp	Ser	Phe	Tyr	Gly	Gln	Gly	Arg
145					150					155					160
Lys	Ile	Ala	Glu	Val	Cys	Cys	Thr	Ser	Ile	Val	Tyr	Ala	Thr	Glu	Lys
			165						170					175	
Lys	Gln	Thr	Lys	Val	Arg	Gly	Ala	Pro	Glu	Pro	Met	Leu	Gly	Ala	Gly
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<210> 4823

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 4823

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180
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240
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<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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		20						25					30		
Asp	Lys	Asn	Ser	Gly	Thr	Gly	Glu	Lys	Lys	Gly	Pro	Asn	Arg	Asn	Arg
		35					40					45			
Val	Phe	Ile	Ser	Asn	Ile	Pro	Tyr	Asp	Met	Lys	Trp	Gln	Ala	Ile	Lys
	50				55				60						
Asp	Leu	Met	Arg	Glu	Lys	Val	Gly	Glu	Val	Thr	Tyr	Val	Glu	Leu	Phe
65				70				75					80		
Lys	Asp	Ala	Glu	Gly	Lys	Ser	Arg	Gly	Cys	Gly	Val	Val	Glu	Phe	Lys
			85					90					95		
Asp	Glu	Glu	Phe	Val	Lys	Lys	Ala	Leu	Glu	Thr	Met	Asn	Lys	Tyr	Asp
		100					105						110		
Leu	Ser	Gly	Arg	Pro	Leu	Asn	Ile	Lys	Glu	Asp	Pro	Asp	Gly	Glu	Asn
	115				120						125				
Ala	Arg	Arg	Ala	Leu	Gln	Arg	Thr	Gly	Gly	Ser	Phe	Pro	Gly	Gly	His
	130				135					140					
Val	Pro	Asp	Met	Gly	Ser	Gly	Leu	Met	Asn	Leu	Pro	Pro	Ser	Ile	Leu
145				150				155					160		
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			165					170					175		
Arg	Leu	Gly	Ser	Thr	Ile	Phe	Val	Ala	Asn	Leu	Asp	Phe	Lys	Val	Gly
	180					185						190			
Trp	Lys	Lys	Leu	Lys	Glu	Val	Phe	Ser	Ile	Ala	Gly	Thr	Val	Lys	Arg
	195				200					205					
Ala	Asp	Ile	Lys	Glu	Asp	Lys	Asp	Gly	Lys	Ser	Arg	Gly	Met	Gly	Thr
	210				215					220					
Val	Thr	Phe	Glu	Gln	Ala	Ile	Glu	Ala	Val	Gln	Ala	Ile	Ser	Met	Phe
225				230				235					240		
Asn	Gly	Gln	Phe	Leu	Phe	Asp	Arg	Pro	Met	His	Val	Lys	Met	Asp	Asp
		245				250						255			
Lys	Ser	Val	Pro	His	Glu	Glu	Tyr	Arg	Ser	Pro	Asp	Gly	Lys	Thr	Pro
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Gln	Leu	Pro	Arg	Gly	Leu	Gly	Gly	Ile	Gly	Met	Gly	Leu	Gly	Pro	Gly

275 280 285
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 Asn Leu Gly Pro Gly Gly Met Gly Met Asp Gly Pro Gly Phe Gly Gly
 305 310 315 320
 Met Asn Arg Ile Gly Gly Gly Ile Gly Phe Gly Gly Leu Glu Ala Met
 325 330 335
 Asn Ser Met Gly Gly Phe Gly Gly Val Gly Arg Met Gly Glu Leu Tyr
 340 345 350
 Arg Gly Ala Met Thr Ser Ser Met Glu Arg Asp Phe Gly Arg Gly Asp
 355 360 365
 Ile Gly Ile Asn Arg Ala Phe Gly Asp Ser Phe Gly Arg Leu Gly Ser
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 Ala Met Ile Gly Gly Ile Thr Gly Arg Ile Gly Ser Ser Asn Met Gly
 385 390 395 400
 Pro Val Gly Ser Gly Ile Ser Gly Gly Met Gly Ser Met Asn Ser Val
 405 410 415
 Thr Gly Gly Met Gly Met Gly Leu Asp Arg Met Ser Ser Ser Phe Asp
 420 425 430
 Arg Met Gly Pro Gly Ile Gly Ala Ile Leu Glu Arg Ser Ile Asp Met
 435 440 445
 Asp Arg Gly Phe Leu Ser Gly Pro Met Gly Ser Gly Met Arg Glu Arg
 450 455 460
 Ile Gly Ser Lys Gly Asn Gln Ile Phe Val Arg Asn Leu Pro Phe Asp
 465 470 475 480
 Leu Thr Trp Gln Lys Leu Lys Glu Lys Phe Ser Gln Cys Gly His Val
 485 490 495
 Met Phe Ala Glu Ile Lys Met Glu Asn Gly Lys Ser Lys Gly Cys Gly
 500 505 510
 Thr Val Arg Phe Asp Ser Pro Glu Ser Ala Glu Lys Ala Cys Arg Ile
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 Met Asn Gly Ile Lys Ile Ser Gly Arg Glu Ile Asp Val Arg Leu Asp
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<210> 4825

<211> 2380

<212> DNA

<213> Homo sapiens

<400> 4825

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 300
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 <213> Homo sapiens

<400> 4829

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120
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180
cgctttgacc acagtgaat atacacttac attggaagtg tggttatatac tgttaaccca
240
tatcggtctt taccatttta ttcaccagag aaagtggaag aatacaggaa cagaaatctt
300
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360
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc
420
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480
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540
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600
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660
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720
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780
gattcggcca aagtgaatgg agtggatgat gcagcaaatt ttagaaccgt gcggaatgcc
840
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1020
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1080
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1140
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1260
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1320
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1380
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1440
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa
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1605

<210> 4830
 <211> 512
 <212> PRT
 <213> Homo sapiens

<400> 4830
 Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly
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 Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
 20 25 30
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35 40 45
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50 55 60
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65 70 75 80
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85 90 95
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
 100 105 110
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
 115 120 125
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
 130 135 140
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
 145 150 155 160
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
 165 170 175
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
 180 185 190
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
 195 200 205
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
 210 215 220
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
 225 230 235 240
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
 245 250 255
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
 260 265 270
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
 275 280 285
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
 290 295 300
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
 305 310 315 320
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
 325 330 335
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
 340 345 350
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
 355 360 365
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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      370              375              380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385              390              395              400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405              410              415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420              425              430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435              440              445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450              455              460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465              470              475              480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485              490              495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500              505              510

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<210> 4831
 <211> 578
 <212> DNA
 <213> Homo sapiens

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<400> 4831
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120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgcctggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acggggccgg ccaagtgagg cccggagacc ccggcccag ggcggccaggc ctgagcccca
360
tgctctccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc
420
tcagttctgt gtcgtgttcg ggtttttctt ctgtgactgg gccgtcttgg tgtctcgtgg
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cacgcgtcac agtgggtgcta gtctgttttt aacaaaagag gatgaaaagc caaaaaaaaa
540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
578

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<210> 4832
 <211> 105
 <212> PRT
 <213> Homo sapiens

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<400> 4832
Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1          5          10          15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

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      20      25      30
Pro His Phe Asn Lys His Leu Leu Gly Ala Glu His Gly Asp Glu Pro
      35      40      45
Arg His Gly Gly Leu Thr Leu Arg Leu Gly Leu His Gln Gln Ser Val
      50      55      60
Leu Gly Gly Gln Asp Gln Leu Arg Val Arg Val Thr Glu Leu Glu Asp
65      70      75      80
Glu Val Arg Asn Leu Arg Lys Ile Asn Arg Asp Leu Phe Asp Phe Ser
      85      90      95
Thr Arg Phe Ile Thr Arg Pro Ala Lys
      100      105

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<210> 4833

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4833

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ctttgagaag gaactgagta ggcaagtgaga agagtcgagt gaagcctggc ccgtgagtgc
120
ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct
180
gaactatatc ctgggttcca gaaaaggcag aggttcttac cgaaagcagg ggaggaagcc
240
gcagcccaag gaggtcgta cttgccggga aggtggctcg ggccaggctg cactcaaaac
300
ccgtgctctg tccacactgc tacggggcca gagccaagga agcttccact tcttccccca
360
gacagcccca acagcggcta cccaaggag ccagcagcct tgtgtcctgg gatccccage
420
ccctgcagaa tgaccaccca ggatctgagc atcacagcca aactcatcaa tggaggtgta
480
gcagggctcg tgggggtgac ctgcgtgttc cccatcgact tggccaagac tcgctgcag
540
aaccagcatg ggaaagccat gtacaaagga atgatcgact gcctgatgaa gacggctcgg
600
gcggagggtc tcttcggcat gtaccgaggg gctgcagtga acctcactct ggtcactcca
660
gagaaggcca tcaagctggc ggccaacgac tttttcggc ggctgctcat ggaagatggg
720
atgcagcggg acctgaagat ggagatgctt gccgggtgtg gggctgggat gtgccaggtc
780
gtggtgacct gtcccatgga aatgctcaag attcagctgc aggcattgctg gacgcctggc
840
cgtccatcat cagggtcgg cctcagcacc ct
872

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<210> 4834

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4834

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Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
 1           5           10           15
Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

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<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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120
cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
180
ccgtgggta ttccagcacc atcccgcctg gcctcccgtt ttgaggtgct gcgctgggac
240
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300
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360
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420
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480
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540
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600
gcggctgagc gtgacctggc ccctggettc ttggaggcct ttgccactgc agcactggag
660
cctgggtgatg ctgcggcagc cctgacctg ctgctactgt atgagccgcg ccaggcccag
720
cgcgtagccc atgcagatgt cttcgacact gtcaaggccc acgtggcaga gctggagcgg
780

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cgtttccccc gtgcccgggt gccatggctc agtgtgcaga cagccgcacc ctcaccactg
 840
 cgcctcatgg atctactctc caagaagcac ccgctggaca cactgttcct gctggccggg
 900
 ccagacacgg tgcacagcc tgacttcctg aaccgctgcc gcatgcatgc catctccggc
 960
 tggcaggcct tctttcccat gcatttccaa gccttccacc cagctgtggc cccaccacaa
 1020
 gggcctgggc cccagagct ggggcccgtga cactggccgc tttgatcgcc aggcagccag
 1080
 cgaggcctgc ttctacaact ccgactacgt ggcagcccggt gggcgccctgg gcgcagctca
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 gaacaagaag aggagctgct ggagagcctg gatgtgtacg agctgttcct ccacttctcc
 1200
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 1320
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 1380
 tgacccacc ctgtccccgt gggcccgtgg cattggccac accccacccc acttctcccc
 1440
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 1500
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 1680
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 1740
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 1800
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 1846

<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

Xaa His Phe Arg Ser Ala Leu Thr Ala His Pro Val Arg Asp Pro Val
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 His Met Tyr Gln Leu His Lys Ala Phe Ala Arg Ala Glu Leu Glu Arg
 20 25 30
 Thr Tyr Gln Glu Ile Gln Glu Leu Gln Trp Glu Ile Gln Asn Thr Ser
 35 40 45
 His Leu Ala Val Asp Gly Asp Arg Ala Ala Ala Trp Pro Val Gly Ile
 50 55 60
 Pro Ala Pro Ser Arg Pro Ala Ser Arg Phe Glu Val Leu Arg Trp Asp
 65 70 75 80
 Tyr Phe Thr Glu Gln His Ala Phe Ser Cys Ala Asp Gly Ser Pro Arg

					85					90					95	
Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp	Val	Ala	Asp	Val	Leu	Gly	
			100						105				110			
Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr	His	Pro	Ala	Leu	Arg	Leu	
		115					120					125				
Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg	Arg	Phe	Asp	Pro	Ala	Arg	
	130					135					140					
Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Gln	Leu	Glu	Ala	Leu	Thr	Pro	Gln	
145					150					155					160	
Gly	Gly	Arg	Arg	Pro	Leu	Thr	Arg	Arg	Val	Gln	Leu	Leu	Arg	Pro	Leu	
				165					170					175		
Ser	Arg	Val	Glu	Ile	Leu	Pro	Val	Pro	Tyr	Val	Thr	Glu	Ala	Ser	Arg	
			180					185					190			
Leu	Thr	Val	Leu	Leu	Pro	Leu	Ala	Ala	Ala	Glu	Arg	Asp	Leu	Ala	Pro	
		195					200					205				
Gly	Phe	Leu	Glu	Ala	Phe	Ala	Thr	Ala	Ala	Leu	Glu	Pro	Gly	Asp	Ala	
	210					215					220					
Ala	Ala	Ala	Leu	Thr	Leu	Leu	Leu	Leu	Tyr	Glu	Pro	Arg	Gln	Ala	Gln	
225					230					235					240	
Arg	Val	Ala	His	Ala	Asp	Val	Phe	Ala	Pro	Val	Lys	Ala	His	Val	Ala	
				245					250					255		
Glu	Leu	Glu	Arg	Arg	Phe	Pro	Gly	Ala	Arg	Val	Pro	Trp	Leu	Ser	Val	
			260					265					270			
Gln	Thr	Ala	Ala	Pro	Ser	Pro	Leu	Arg	Leu	Met	Asp	Leu	Leu	Ser	Lys	
		275					280					285				
Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu	Ala	Gly	Pro	Asp	Thr	Val	
	290					295					300					
Leu	Thr	Pro	Asp	Phe	Leu	Asn	Arg	Cys	Arg	Met	His	Ala	Ile	Ser	Gly	
305				310						315					320	
Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln	Ala	Phe	His	Pro	Ala	Val	
				325					330					335		
Ala	Pro	Pro	Gln	Gly	Pro	Gly	Pro	Pro	Glu	Leu	Gly	Pro				
			340					345								

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<210> 4837
<211> 906
<212> DNA
<213> Homo sapiens
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<400> 4837
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120
actgtaaatt atgatagtgt caattctgac aactctaagc caaagatatt taaaagtc
180
atagagaaca taaatttgac caatggcagc aatgggagga acacagagtc ccagctg
240
attaccctt gtggaaatcc tacagtgatt gaggacgctt tggacaagat taaaagcaat
300
gaccctgaca ccacagaagt caatttgaac aacattgaga acatcacaac acagaccctt
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420
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acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac
 480
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 540
 agagctctcc agcacaacac ggtgctcacg gagctgcgtt tccataacca gaggcacatc
 600
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 660
 aggctgggat accattttga actcccagga ccaagaatga gcatgacgag cattttgaca
 720
 agaaatatgg ataaacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac
 780
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag cccttccctc
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 acgcgt
 906

<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

Xaa	Gly	Glu	Glu	Glu	Val	Val	Ala	Ala	Phe	Gly	Lys	Lys	Glu	Ser
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Gln	Glu	Glu	Glu	Glu	Glu	Asp	Ser	Asp	Glu	Gly	Glu	Arg	Thr	Ile
		20				25						30		
Glu	Thr	Ala	Lys	Gly	Ile	Asn	Gly	Thr	Val	Asn	Tyr	Asp	Ser	Val
		35				40						45		Asn
Ser	Asp	Asn	Ser	Lys	Pro	Lys	Ile	Phe	Lys	Ser	Gln	Ile	Glu	Asn
		50				55					60			Ile
Asn	Leu	Thr	Asn	Gly	Ser	Asn	Gly	Arg	Asn	Thr	Glu	Ser	Pro	Ala
					70				75					80
Ile	His	Pro	Cys	Gly	Asn	Pro	Thr	Val	Ile	Glu	Asp	Ala	Leu	Asp
					85				90					95
Ile	Lys	Ser	Asn	Asp	Pro	Asp	Thr	Thr	Glu	Val	Asn	Leu	Asn	Ile
			100					105					110	
Glu	Asn	Ile	Thr	Thr	Gln	Thr	Leu	Thr	Arg	Phe	Ala	Glu	Ala	Leu
			115				120					125		Lys
Asp	Asn	Thr	Val	Val	Lys	Thr	Phe	Ser	Leu	Ala	Asn	Thr	His	Ala
			130				135					140		Asp
Asp	Ser	Ala	Ala	Met	Ala	Ile	Ala	Glu	Met	Leu	Lys	Val	Asn	Glu
					150					155				160
Ile	Thr	Asn	Val	Asn	Val	Glu	Ser	Asn	Phe	Ile	Thr	Gly	Lys	Gly
					165				170					175
Leu	Ala	Ile	Met	Arg	Ala	Leu	Gln	His	Asn	Thr	Val	Leu	Thr	Glu
					180				185				190	Leu
Arg	Phe	His	Asn	Gln	Arg	His	Ile	Met	Gly	Ser	Gln	Val	Glu	Met
			195				200					205		Glu
Ile	Val	Lys	Leu	Leu	Lys	Glu	Asn	Thr	Thr	Leu	Leu	Arg	Leu	Gly
			210				215					220		Tyr
His	Phe	Glu	Leu	Pro	Gly	Pro	Arg	Met	Ser	Met	Thr	Ser	Ile	Leu
														Thr

225		230		235		240									
Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
				245				250					255		
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
			260					265					270		
Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
		275					280					285			
Trp	Ser	Ser	Pro	Lys	Leu	Pro	Tyr	Gly	Glu	Thr	Thr	Thr	Arg		
	290					295					300				

<210> 4839

<211> 1313

<212> DNA

<213> Homo sapiens

<400> 4839

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120
tccccggggc cgcccggccc tgatggccac tcacgtata gcgcccactc tgcctcgggc
180
catccgcgc cagcagtgtg gccccagcc cgggcgcctg aatgctctcc ctccggatcg
240
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300
ctgtatcagg cgctgcgcc ttcaagggtg cccggccgc ctgccctccc caagagccga
360
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420
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480
gctcggcaaa gaaggaaggc agcttgcttc agaccttggg gagcagctgc agactgcctg
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720
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780
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960
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1080
tgaggtggag gaacagaagt gaaatgagca atctgctcca tttagaagtc agtcgcttcg
1140

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<212> PRT

<213> Homo sapiens

<400> 4846

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Phe	Glu	His	Asn	Gly	Glu	Arg	Arg	Ile	Ile	Ala	Phe	Ser	Arg	Pro	Val
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Ser	Ala	Asp	Ser	Glu	Asn	Ala	Leu	Ser	Val	Gln	Glu	Arg	Asn	Val	Pro			
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His	Ser	As																

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<211> 2804

<212> DNA

<213> Homo sapiens

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 180 185 190
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<212> PRT

<213> Homo sapiens

<400> 4850

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Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			85					90					95		
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
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Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
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Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
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Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
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<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala
      50           55           60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala
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Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu
      85           90           95
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala
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Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa
      115           120           125
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Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val
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      180           185           190
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His
      195           200           205
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu
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Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe
      225           230           235           240
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His
      245           250           255
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys
      260           265           270
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu
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Ala Ala Thr Pro Tyr His Cys
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<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
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		165						170						175	
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<211> 2887

<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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 Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
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 Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
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 Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
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 180 185 190
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 195 200 205
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 210 215 220
 Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
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 <212> DNA
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 50 55 60
 Gln Gly Gln Gly Glu Pro Arg Glu Lys Arg Pro Gly Leu Leu Ser Phe
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 Arg Leu Ser Pro Pro Trp Ala Phe Val Cys Phe Gly Arg Cys His Leu
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 Thr Arg Thr Leu Ile Phe Asn Pro Ile Pro Leu Pro Pro Thr Leu Pro
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 His Phe Asp Leu Ile Leu Trp Leu Trp Ala Glu Ala Ser Gln Gly Ser
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<210> 4861
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 <212> DNA
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<400> 4862
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 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
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 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
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 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
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 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
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 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
 245 250 255
 Thr Val Lys Gln
 260

<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 4863
 ctgggggctc actttcgggt gcacctggtg aagatggtca ttctgacaga gcctgagggt
 60
 gccccaaata tcacagccaa cctcacctcg tccctgctga gcgtctgtgg gtggagccag
 120
 accatcaacc ctgaggacga caggatcct ggccatgctg acctggctct ctatatcact
 180

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<210> 4864
<211> 118
<212> PRT
<213> Homo sapiens
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<210> 4865
<211> 444
<212> DNA
<213> Homo sapiens
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<210> 4866

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4866

```

Thr Gly Glu Lys Pro Tyr Lys Cys Glu Val Cys Ser Lys Ala Phe Ser
 1           5           10           15
Gln Ser Ser Asp Leu Ile Lys His Gln Arg Thr His Thr Gly Glu Arg
      20           25           30
Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
      35           40           45
Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50           55           60
Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
65           70           75           80
Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
      85           90           95
Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
      100          105          110
Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
      115          120          125
Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
      130          135          140
Pro Phe Thr Arg
145

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<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867

```

ggatcccaga gggagttcta tctggacttg cccaagcag gttgctaggc agtagcctca
60
tattccttggg gggaggatga gaaggacaaa aagaggcaac cagcctaggg acatcggcct
120
ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagcccca
180
gagacagccc caggggggtgc tgcctggaga cagccgggat agcttcagtc tcctgaccct
240
gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa
300
ggggcagggc caaggctatg gcccacaagc tcctcagcag ctgagatggg tgcaggaggt
360
agcgctctac tcccatagct cccactgta t
391

```

<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868

```

Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

```

```

      1             5             10             15
Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20             25             30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35             40             45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50             55             60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65             70             75             80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85             90             95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100            105            110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115            120            125

```

<210> 4869
 <211> 418
 <212> DNA
 <213> Homo sapiens

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<400> 4869
cccggaaga gggcgcccg ccataaatgc ggaaacagtt aaatggcgat gggaatagga
60
tggaactca atggtgttgc tacctttgga tggactcgga ggcagcccag cttcctggga
120
caggactgca cggactgcct ggggaggggt ctttgcccc ccggttctg cagggggggt
180
cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcca tctgttctt
240
cccaacagc cctggagaag ggggacgttg cctgctgtgg ctgcggtgtg tttcctggcc
300
tgtgagaggc ggggccagag tggccgttgg gaatctgggt gttgcaaggt gaccacaaac
360
agctctctgg gggaggagga ggaaaatgca attgattttc aggagccttc tgaggtcg
418

```

<210> 4870
 <211> 125
 <212> PRT
 <213> Homo sapiens

```

<400> 4870
Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
      1             5             10             15
Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20             25             30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35             40             45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50             55             60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65             70             75             80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

```


				85					90					95		
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu	
			100					105					110			
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val				
		115					120					125				

```
<210> 4871
<211> 1354
<212> DNA
<213> Homo sapiens
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<400> 4871
nnntttttttt tttttttttt tttttctaga atccgcttta ttatggcacc tgggtgggtct
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gggtgggatct gagggaggaa gaggctgcag tcttgctggg cagcccctcg gtcagtccag
120
cagcccctca ggccatgctg ctgctcagct gcatggcaaa gtctgcaca tgctccttca
180
gagtctggcg ggcattctgcc tgtgcccgtt tctcccgtgc ccgctcctgc tgcagcttgg
240
tcagtctcaa ccgcagccgc tgctcccgcg gcttgtaggc ctgcagctgg cgctgggcct
300
tgtcaagggc atcaagggct gcctgggtcg ccgcttccag agtaaggcgc tgcccacctg
360
gtagctgtgt tcattctgga tgtaggctcc ggccgggtggg ggccaggcag catatacgct
420
gaagggggaga ctggccgttg ttcgagaggg gagggctgcc gctctggtga aggctgggag
480
ctgcagcctg cttcatctgc ctgggcaccc aaggggcccc gtaggtctga aaaggggctg
540
ctaaggccag gctccagcct ccagctggg gagggccgga aagtggcagg tgctgaggcc
600
tcttccacag gaaagcaggt gacatcagca ggtggaggtg gagaaaaatg agttgtgggc
660
cctcggccct cggagcagcg ctctctgcat cgtctaagcc ggctgacttc agggggggcca
720
ggtgggtaac tgtgtccttt ggtcttggtt gtccggcgca acttgagaaa agactcaaat
780
atggtgggga ctgccccctc ctttagcctg tgatatccac tgattccac cagctcaaag
840
cagtctctct caaagtgttt ggagcagaag tagatgtact cggatgccgg gtcccacagg
900
ccttgccgc tgggggtccag ccgctggcag ttggccagcc acaagcctcg cctcgggttg
960
tccttcttgg gaagtctgtg gagccacaaa ccgctgagca ccaggctgtc cacagccctg
1020
ggctcatgct gcccgaagcac ccagagggg aaacgcagac ccaacacgcg ccgccacgag
1080
acctccctgc gaccccgccg ggtaagcacc accgcccggg cacagacgag gcaacggagg
1140
cctcgagaag aaaagcagtt tcctcagcgt catctggcag gtaacagagt gggggcgggtc
1200
caagccgggt agacttcccg tcctcccctt ccgactgca ttcagtcctg ccgggaccgt
1260

tccgcttcac ctcccaccca caggttcaag cctcctcagt atctgagaaa ggcgcgaagc
 1320
 ctctacgcag ttgcgacccg aggcgagcaa caac
 1354

<210> 4872
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4872
 Gly Arg Lys Arg Leu Gln Ser Cys Trp Ala Ala Pro Arg Ser Val Gln
 1 5 10 15
 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala
 20 25 30
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro
 35 40 45
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala
 50 55 60
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His
 65 70 75 80
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu
 85 90

<210> 4873
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 4873
 ncccccttag gatgcagaaa gtagatgaca ttccatccac actgtgtgag caaattggag
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 agattgcctt gatagaggac tgatgttttt cactgatgag atggtgacca aaagccagcc
 120
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg
 180
 gaacacgacc tggccgatgt gggtcaaatt gcagtggag acctgagccc tgaccacca
 240
 ggtacagagc tgtgggacag tggtgttttg gagaatcatg tagtgacaga tgaagacgaa
 300
 cctgctttga aacgccagcg actagaaatc aattgccagg atccatctat aaagtcattc
 360
 ctgtattcca tcaaccagac aatctgcttg cggttggata gcattgaagc caaattgcaa
 420
 gccctggagg ctacttgtaa atccttagaa gaaaagctgg atctggtcac gaacaagcag
 480
 cacagcccca tccaggttcc catggtggcc ggctccctc tcaggacaac ccagatgtgc
 540
 aacaaagtgc gatgtaaga acagaccagg gtgccggggc cttcaggtca cttggggaga
 600
 agcgcgtcac ctctcgccc atgccgcag cttagtggct cagtttgctg gagatgcgca
 660
 gtgtctgct cagcagtctc agcagtttct aactaaagct gactttagtt agaccgaaac
 720

cgaacacatg gcatcctgcc aggatgacct gaagtcaccc tcacctttcc ttccacata
 780
 aagccggccc atacaccttt tctttggaac taaccacca gatcttagaa gatgtacacg
 840
 tgcttctttc ctttttcccta ctctacctgg ctagtcttta gatatgtttt tcttcgtatg
 900
 tgggtgtttat acatttcaca tgaatatatc aaacttttca ttcaaaaa
 948

<210> 4874
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4874
 Met Met Ser Glu His Asp Leu Ala Asp Val Val Gln Ile Ala Val Glu
 1 5 10 15
 Asp Leu Ser Pro Asp His Pro Gly Thr Glu Leu Trp Asp Ser Val Val
 20 25 30
 Leu Glu Asn His Val Val Thr Asp Glu Asp Glu Pro Ala Leu Lys Arg
 35 40 45
 Gln Arg Leu Glu Ile Asn Cys Gln Asp Pro Ser Ile Lys Ser Phe Leu
 50 55 60
 Tyr Ser Ile Asn Gln Thr Ile Cys Leu Arg Leu Asp Ser Ile Glu Ala
 65 70 75 80
 Lys Leu Gln Ala Leu Glu Ala Thr Cys Lys Ser Leu Glu Glu Lys Leu
 85 90 95
 Asp Leu Val Thr Asn Lys Gln His Ser Pro Ile Gln Val Pro Met Val
 100 105 110
 Ala Gly Ser Pro Leu Arg Thr Thr Gln Met Cys Asn Lys Val Arg Trp
 115 120 125

<210> 4875
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4875
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 tcgccggcgc ggtcgttgtc gcattgctct cgccgcact cgcgctgtac gggccgccac
 120
 tggacgcagt tttagaaaga gcgttttcgc tacgtaaagc acattcgata aaggatatgg
 180
 aaaatacttt gcagctgggtg agaaatatca tacctcctct gtcttccaca aagcaciaag
 240
 ggcaagatgg aagaataggc gtagttggag gctgtcagga gtacactgga gcccacatatt
 300
 ttgcagcaat ctcagctctc aaagtgggag cagacttgct ccacgtgttc tgtgccagtg
 360
 cggccgcacc tgtgattaag gcctacagcc cggagctgat cgtccacca gttcttgaca
 420
 gccccaatgc tgttcattgag gtggagaagt ggctgccccg gctgcatgct cttgtcgtag
 480

gacctggctt gggtagagat gatcggtccac ccagttcttg acagcccca tgctgttcat
 540
 gaggtggaga agtggctgcc ccggctgcat gctcttgctg taggaactgg cttgggtaga
 600
 gatgatgctc ttctcagaaa tgtccagggc attttggaa tgtaaaggc cagggacatc
 660
 cctgttgctc tcgacgcgga tggcctgtgg ctggtcgctc agcagccggc cctcatccat
 720
 ggctaccgga aggctgtgct cactcccaac cacgtggagt tcagcagact gtatgacgct
 780
 gtgtcagag gccctatgga cagcgatgac agccatggat ctgtgctaag actcagccaa
 840
 gccctgggca acgtgacggt ggtccagaaa ggagagcgcg acatcctctc caacggccag
 900
 caggtgcttg tgtgcagcca ggaaggcagc agcccgaggt gtggagggca aggggacctc
 960
 ctgtcgggct ccctgggcgt cctgggtacac tgggcgctcc ttgtgggacc acagaaaaca
 1020
 aatgggtcca gccctctcct ggtggcgcg tttggcgctt gctctctcac caggcagtgc
 1080
 aaccaccaag ccttcagaa gcacggctgc tccaccacca cctccgacat gatcgccgag
 1140
 gtgggggccc ccttcagcaa gctctttgaa acctgagccc gcgcagacca gaagtaaaca
 1200
 ggcaccttg acgggggaga gcgtgtgtgt gatgggaaaa tccggaccca cgcgt
 1255

<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

Leu Ala Trp Val Glu Met Ile Val His Pro Val Leu Asp Ser Pro Asn
 1 5 10 15
 Ala Val His Glu Val Glu Lys Trp Leu Pro Arg Leu His Ala Leu Val
 20 25 30
 Val Gly Thr Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val Gln
 35 40 45
 Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile Asp
 50 55 60
 Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro Ala Leu Ile His Gly
 65 70 75 80
 Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu
 85 90 95
 Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser Asp Ser His Gly
 100 105 110
 Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn Val Thr Val Val Gln
 115 120 125
 Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln Gln Val Leu Val Cys
 130 135 140
 Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly Gln Gly Asp Leu Leu
 145 150 155 160
 Ser Gly Ser Leu Gly Val Leu Val His Trp Ala Leu Leu Ala Gly Pro

[illegible]

<210> 4877

<211> 1182

<212> DNA

<213> Homo sapiens

<400> 4877

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120	gttcaatgaa	tgcgtgcgga	atgaatgaac	gactctagt	aaagagactc
180	ggccgggatt	tgcggacacg	agccccgcgc	cgcaagcat	tctggggatt
240	cgtgacgcgg	tgactcgcag	agcactgacg	cactctgcgc	ccggaggaca
300	gtcgcggca	tggtttctcc	gtcctgctgc	agccggcggg	aggcagccag
360	cgctagcttc	ggcggcgacc	cagacgggga	aagcgaagg	aatgtcgcgt
420	agctgggtgtg	gaagaatggc	ggtgagccat	tcagtgaagg	agcggaccat
480	agcctgatca	tcctactgca	gggcctccag	ggccgggtaa	ccactgtgga
540	gagagcgtgg	cccacggacg	catagacaat	gtcgtgctt	tcattgaacat
600	aaagtacact	acacggaccg	ttgggggcat	caggtcaagc	tggatgacct
660	ggccgcaatg	tccgctacgt	ccacatccca	gatgacgtga	acatcacctc
720	cagcagctgc	agattatcca	tccgggtgcga	aactttggtg	gcaagggcca
780	gaatttcccc	caaaaaaact	gtaagtgagg	ccctcagcaa	gccctggccc
840	tcctccagtg	atctccggag	ctagtccctt	gcctcacac	cctgtctggt
900	aaagcagggc	caggccagaa	gctgggtgtc	aacagacacc	acctgtcaaa
960	acagggttcc	acctcccaga	ctcactctgg	gaccagaat	cctatatgtg
1020	aggtgacaat	cccccttttt	gatgatctga	atctctgact	tattgattat
1080	aagtgtttt	caactctccc	agtgaggata	attaacatg	ctcagcctga
1140					

agtgtctcca tttctcatgc agttgtgttc attttctcat ga
1182

<210> 4878
<211> 122
<212> PRT
<213> Homo sapiens

<400> 4878
Met Ala Val Ser His Ser Val Lys Glu Arg Thr Ile Ser Glu Asn Ser
1 5 10 15
Leu Ile Ile Leu Leu Gln Gly Leu Gln Gly Arg Val Thr Thr Val Asp
20 25 30
Leu Arg Asp Glu Ser Val Ala His Gly Arg Ile Asp Asn Val Asp Ala
35 40 45
Phe Met Asn Ile Arg Leu Ala Lys Val Thr Tyr Thr Asp Arg Trp Gly
50 55 60
His Gln Val Lys Leu Asp Asp Leu Phe Val Thr Gly Arg Asn Val Arg
65 70 75 80
Tyr Val His Ile Pro Asp Asp Val Asn Ile Thr Ser Thr Ile Glu Gln
85 90 95
Gln Leu Gln Ile Ile His Arg Val Arg Asn Phe Gly Gly Lys Gly Gln
100 105 110
Gly Arg Trp Glu Phe Pro Pro Lys Lys Leu
115 120

<210> 4879
<211> 1941
<212> DNA
<213> Homo sapiens

<400> 4879
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cgctaccac gtgaagaggt acagccgggc gcagtttggg gagagactcg tcagagagct
120
gctgggcttg gaggatgcct ctccgaccca ctgatgctgg gggcgagga ctcggtcaag
180
ggaggggcaa gaggaggagg agagcctgcc gttccaactt gccatcaga gaccggaca
240
cggcctggtg tgtggcttgc tgcctgggag ggatgcacag ggctcctga gggacaggat
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360
tcgagaaaca gtgccggcgg tgtgatgagc acttacccc acgttctcaa gggcagattc
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480
ccgtggtaga atgagctgga gcacgtcta agagagatgc ctgcttcta aagatctaca
540
gcaatctggg acgtggttca agttcaagac ttgaaggaag caaagacgcc ctgcatggtt
600
acaatggctc aggtgtcagg ggaggccgga ggttttccag catttgctc atgccagcac
660

ctttgaaccg gtctcttaga agaagacaca catcctgggt gtacagtggg gaaatgggga
 720
 gtgggtgccc attctgaaaa acgaggcatt cctgctcatt ccctctgctt agctggtggg
 780
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 900
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 1020
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 1080
 cattggcaga attacttgtc ttgaaaaata agtagcattg ctgaaacaca caaccgaatt
 1140
 ctctacgatg gccatttget cattgtcttt cctctgtgtg tagtgagtga ccctggcagt
 1200
 gtttgctgct tcagagtggc ccctcagaac aacagggctg gccttgga aaacccaaaa
 1260
 caggactgtg gtgacaactc tggtcagggtg tgatttgaca tgagggcccg aggcggttg
 1320
 tgacggcagg actggagagg ctgcgtgccc ggcaactggca gcgaggctcg tgtgtcccc
 1380
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 agagtgggtg gcagatctga ccacccccac agaccagaaa caaggaattt ctgggattac
 1500
 ccagtccccc ttcaaccag ttgatgtaac cacctcattt tttacaaata cagaatctat
 1560
 tctactcagg ctatgggcct cgtcctcact cagttattgc gagtgttgct gtccgcatgc
 1620
 tccgggcccc acgtggctcc tgtgctctag atcatggtga cccccccg ccgtgggttg
 1680
 aatcgatgcc acggattgca ggccaaattt cagatcgtgt ttccaaacac ccttgcgtgt
 1740
 ccctttaatg ggattgaaag cacttttacc acatggagaa atatattttt aatttgtgat
 1800
 gcttttctac aagggtccact atttctgagt ttaatgtgtt tccaacactt aaggagactc
 1860
 taatgaaagc tgatgaattt tcttttctgt ccaaacaagt aaaataaaaa taaaagtcta
 1920
 tttagatggt gaaaaaaaaa a
 1941

<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

Met Val Arg Ser Ala His His Ser Gly Thr Glu Ala Ser Leu Glu Thr
 1 5 10 15
 His Lys Pro Gly Leu Gly Lys Cys Pro Asp Leu Pro Gly Gly His Thr

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      20      25      30
Ser Leu Ala Ala Ser Ala Gly His Ala Ala Ser Pro Val Leu Pro Ser
      35      40      45
Ala Thr Ala Ser Gly Pro His Val Lys Ser His Leu Thr Arg Val Val
      50      55      60
Thr Thr Val Leu Phe Trp Gly Phe Ser Lys Ala Ser Pro Val Val Leu
      65      70      75      80
Arg Gly His Ser Glu Gln Ala Asn Thr Ala Arg Val Thr His Tyr Thr
      85      90      95
Gln Arg Lys Asp Asn Glu Gln Met Ala Ile Val Glu Asn Ser Val Val
      100      105      110
Cys Phe Ser Asn Ala Thr Tyr Phe Ser Arg Gln Val Ile Leu Pro Met
      115      120      125
Met Thr Ser Ala Thr Lys Leu Arg Ala Arg Gly Leu Pro Met Arg Leu
      130      135      140
Val Glu Ser Asn His Val Cys Ser Glu Ala Ser Gly Pro Ser Arg Pro
      145      150      155      160
Cys His Arg Pro Glu His Arg Thr Val Ile Met Gln Arg Ala Val Thr
      165      170      175
Glu Ala Gly Val Ser Val Gly Gly Gly Glu Glu Gly Thr Ser Ala Phe
      180      185      190
Tyr Ile Arg Ser Glu Ala Thr Val Arg Lys
      195      200

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<210> 4881
 <211> 1333
 <212> DNA
 <213> Homo sapiens

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<400> 4881
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120
ctagggttttg gatacatgac gcagcaactg atgaacctgg caggaggcgc agtgggtgctg
180
gccttgaggagg gtggccatga cctcacagcc atctgtgacg cctctgaggc ctgtgtggct
240
gctcttctgg gtaacagggt gagccgtctc cctcccccat ccatgcttct gtcaggcagg
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taagcccggc tctcaggact acccaaggaa caggcagatg ggatgggaca ggggtgggagt
360
ggccaagcct gaaacaaggt aggcgaagcg aaagcctctg ttccaagtta ggtccaggca
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480
agtgaactgg gcctgtgggt cctgaaaga ctggtggctg atgtactgtt ttctataggt
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600
ggaggccgtg atccgggtgc acagtaagtg tggagatggg aactcgtg agctcagact
660
gaaggatctt ggtggtaccc tgccccaccg tggccagatc ctagggtctc cgggtgccagc
720

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caggtagacct gctgttggtc tggagtaaga ttcctgtgag tgacccaggc agcaatggta
 780
 aatactgggg ctgcatgcag cgcttggcct cctgtccaga ctctgggtg cctagagtgc
 840
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 900
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<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50				55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70					75				80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
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<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35					40					45				

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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
      85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
    100          105          110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
    115          120          125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
    130          135          140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145          150          155          160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
      165          170          175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
    180          185          190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
    195          200          205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
    210          215          220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225          230          235          240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
      245          250          255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
    260          265          270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
    275          280          285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
    290          295          300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305          310          315          320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
      325          330          335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
    340          345          350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
    355          360          365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
    370          375          380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
385          390          395          400
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<210> 4885
<211> 489
<212> DNA
<213> Homo sapiens

<400> 4885

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 <213> Homo sapiens

<400> 4886
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 Val Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Ser
 50 55 60
 Leu Val Gly Phe Pro Phe Ser Lys Pro Gly Ile Ile Ser
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<210> 4887
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 <212> DNA
 <213> Homo sapiens

<400> 4887
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<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
	35						40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
	50					55					60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
			85						90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
			115				120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
	130					135				140					
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145					150					155				160	
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
			165						170				175		
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180					185					190		
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Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
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Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
225					230					235				240	
Ala	Pro	Glu	Ser	Thr	Ser	Asp	Xaa	Phe	Pro	Xaa	Ala	Gly	Lys	Ser	Gln
			245						250				255		
Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
			260					265					270		
Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
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Ile	Val	Gly	Met	Pro	Val	Asp	Ser	Phe	Asn	Ser	Met	Leu	Ser	Arg	Tyr

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      325              330              335
Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys
      340              345              350
Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile
      355              360              365
Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
      370              375              380
Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln
385              390              395              400
Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala
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<210> 4889

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<210> 4890

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4890

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		20		25		30									
Arg	Thr	Gly	Gln	Pro	Gln	Pro	Ala	Pro	Thr	Arg	Val	Asn	Ile	Ser	Arg
		35		40		45									
Pro	Ser	Pro	Thr	Leu	Phe	Pro	Asp	Ser	Gln	Gln	Thr	Asp	Val	Gly	Ser
		50		55		60									
Arg	Thr	Asp	Pro	Phe	Thr	His	Thr	His	Thr	His	Ser	His	Ser	Phe	Ala
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<210> 4891

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 4891

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1080

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<210> 4892

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4892

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 35 40 45
 Pro Leu Pro Lys Lys Arg Lys Gly Arg Pro Pro Gly His Ile Leu Ser
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 Ser Thr Thr Phe Val Leu Gly Ser Arg Ala Asn Lys Ala Leu Gly Met
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